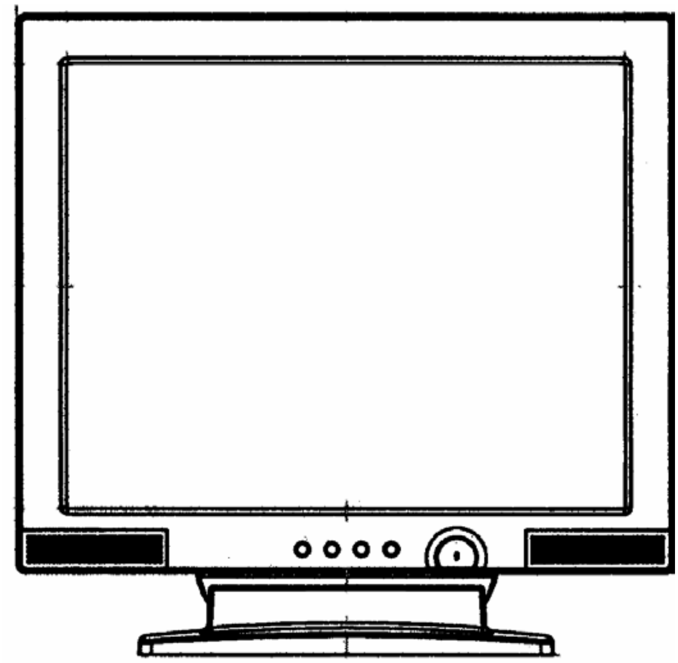
Service Manual



Model: Belinea 101910

Art. No. 111908

MAXDATA Systeme GmbH

Elbestr. 12-16

45768 Marl / Germany

Content

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians.
Any attempt to service or repair the product or products dealt within this service information by anyone else could result in serious injury or death.

SAFETY PRECAUTIONS

1. CAUTION:

No modification of any circuit should be attempted. Service work should only be performed after you are through familiar with all of the following safety checks and servicing guide lines.

2. SAFETY CHECK

Care should be taken while servicing this LCD display. Beware of the high voltage used in the inverter circuit. These voltages are exposed in such areas as the associated transformer circuits.

3. POWER SUPPLY REQUIREMENTS

The internal power converter for this display utilizes an AC cord. The AC cord is detachable.
Any attempt to replace another adapter could result in serious problem on the display.

4. LEAKAGE CURRENT HOT CHECK

4-1 Plug the AC cord directly into the AC outlet. Do not use an isolation transformer during this check.

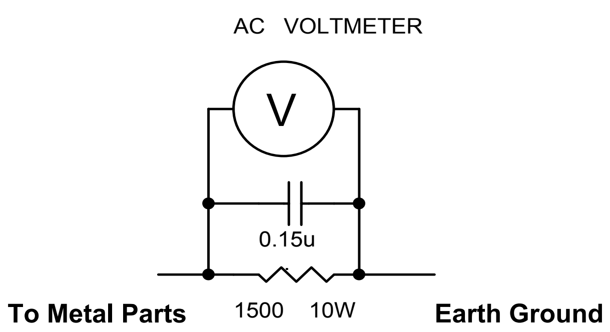
4-2 Connect a 1500 ohm, 10 watt resistor, paralleled by a 0.15uF capacitor between each metallic part and a good earth ground.

4-3 Use an AC voltmeter with 1000 ohm / volt or more sensitivity and measure the AC voltage across the combination 1500 ohm resistor and 0.15uF capacitor.

4-4 Move the resistor connection to each exposed metallic part and measure the voltage.

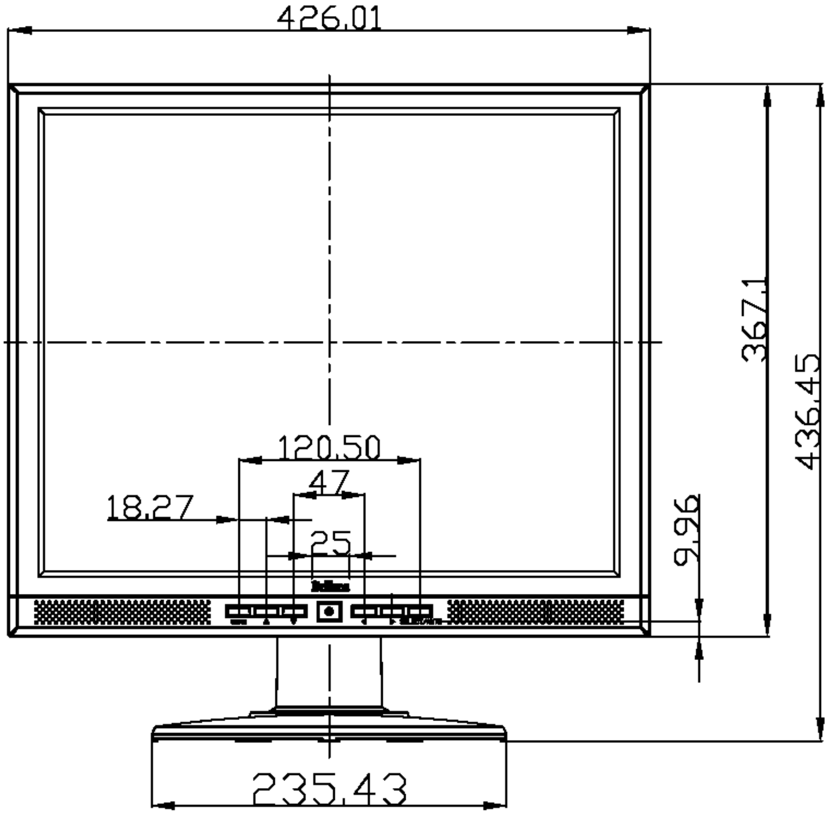
4-5 Reverse the polarity of the AC plug in the AC outlet and repeat the above measurement.

4-6 Voltage measured must not exceed 1.5 volt RMS, from any exposed metallic part to the ground. A leakage current tester may be used in the above hot check, in which case any circuit measured must not exceed 1 milliamp. In the case of a measurement exceeding the 1 milliamp value, a rework is required to eliminate the chance of a shock hazard.

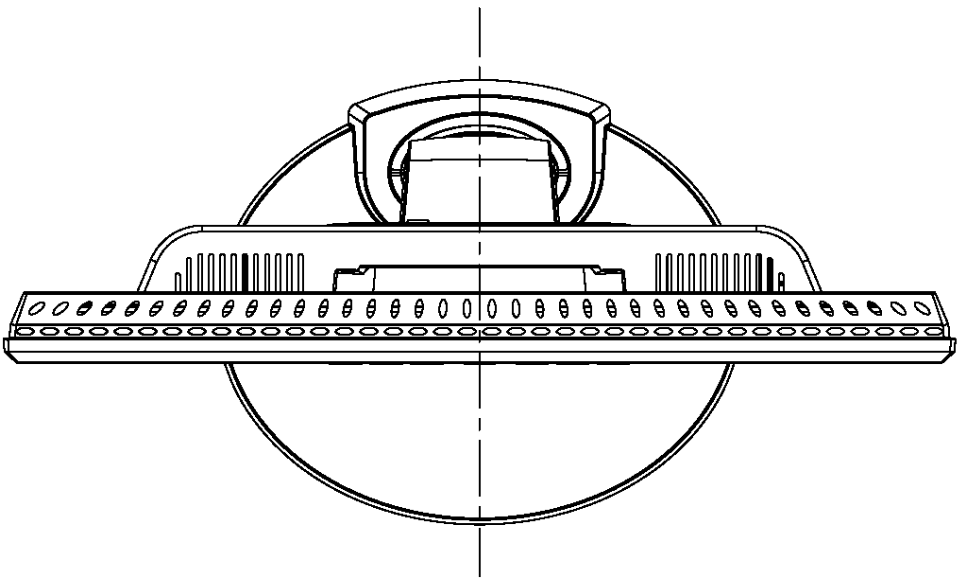


1. DIMENSIONS (Unit: mm)

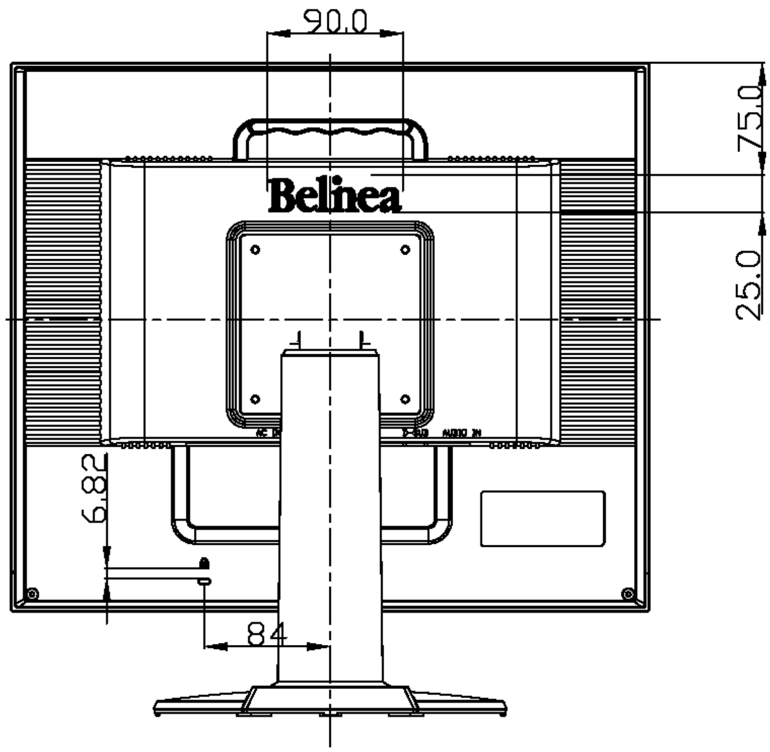
1.1 Front View



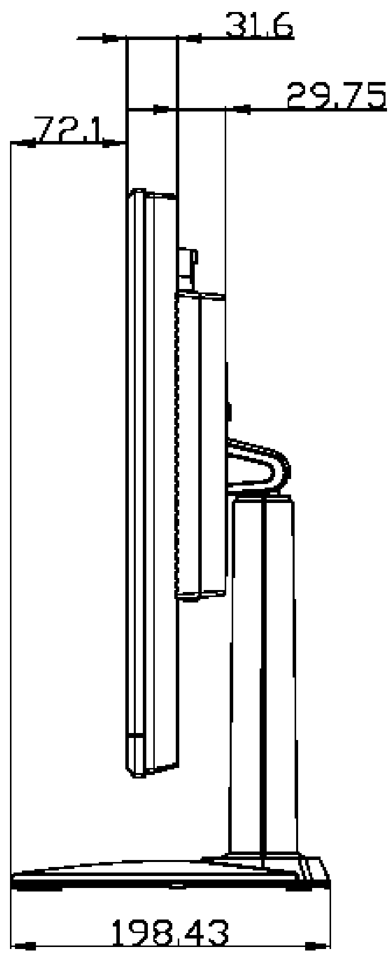
1.2 Top View



1.3 Rear View



1.4 Side View



2. GENERAL INFORMATION

2.1. OUTLINE

This monitor is a 19" multi-scan color LCD display with the following features / OSD (on screen display) control allows easy user adjustment. Power saving function, which helps saving power, is also one of the highlights of this model.

2.2. FEATURES

2.2.1 Power Saving

The built in Power Saving function based on VESA-DMPS standard. Power energy shall be saved by controlling the circuit in accordance with power save signal from computer.

2.2.2 OSD (on screen display) function

OSD (5 Languages) function is excellent and new man-machine interface.
Anyone is able to set up the picture as the like through OSD menu.

2.2.3 Self Test function

Self Testing picture comes out by pushing any key in the case of no-connection with computer or power saving operation. This function shows if monitor is alive or not and can be used for self aging test.

2.2.4 Ergonomic design

Low emission design to meet MPR II and TCO03

2.2.5 Multi scans with digital technology

8 bit micro controller controls the circuit operation to meet with wide range signal of Fh=31~83 kHz and Fv= 56~75 Hz. So VGA640x400, VGA640x480, SVGA800x60, XGA 1024x768, SXGA 1280x1024 can bee use.

2.2.6 Factory preset

The product has 32 memory modes in total. 15 modes are preset and 17 modes are user definable.

2.2.7 Fine dot pitch

LCD panel with a fine dot pitch (Horizontal: 0.264 mm / Vertical: 0.264 mm)

2.2.8 Superior display performance

High contrast : 700 : 1(Typical)
High brightness : 250 cd / m² (Typical)
Wide view angle : 170 / 170 degrees (H/V)

2.2.9 Special function

VESA DDC2B (Display Data Channel) Compatible

3. SPECIFICATION

3.1. Outline

3.1.1 Front Indication: POWER SW, LED (Green/Amber), UP, DOWN, LEFT, RIGHT, Set/Auto and MENU keys are located on the front panel.

3.1.2 Video signal cable connector, audio line-in receptacle and AC inlet are located on the back side cabinet.

3.1.3 OSD menu includes the following function. CONTRAST, BRIGHTNESS, H.POSITION, V.POSITION COLOR-TEMPERATURE, CLOCK, PHASE, LANGUAGE, VOLUME, POWER-ON-RECALL

3.1.4 CONTRAST and BRIGHTNESS can be directly controlled with UP / Down key.

3.1.5 VOLUME can be controlled with LEFT / RIGHT key.

3.2. MECHANICAL SPECIFICATIONS

3.2.1 Dimension Height: 437 mm
Width: 426 mm
Depth: 198 mm

3.2.2 Net Weight: 5.0 kg

3.2.3 Maximum Viewable Area: Diagonal 482.6 mm (19")

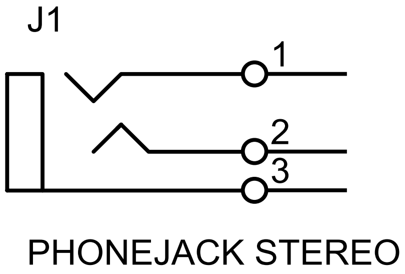
3.3. PANEL SPECIFICATIONS

Part No.	M190EN02
Driver bit of panel	8 bit
Contrast ratio	700:1
Brightness	250 cd/ m2
Pixel pitch	0.264 mm
Response time	Typical 25 ms
View angle	85/85/85/85 degrees
Color coordinate	x=0.313,y=0.329

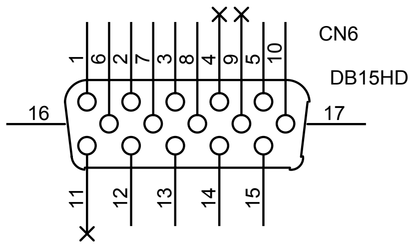
3.4. CONNECTORS

3.4.1 AC inlet: CEE22 typed connector

3.4.2 Audio: Line-in receptacle

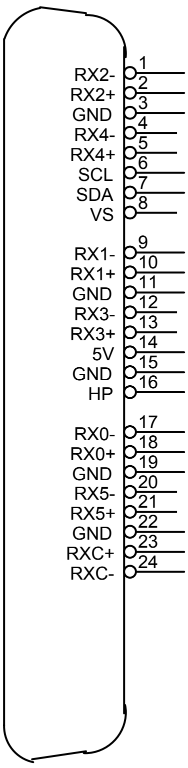


3.4.3 Video signal cable connector for analog input: 15P Mini D-Sub



PIN	MNEMONI	SIGNAL
1	RV	Red Video
2	GV	Green Video
3	BV	Blue Video
4	NC	None
5	GND	Ground (DDC return)
6	RG	Red GND
7	GG	Green GND
8	BG	Blue GND
9	+5V	+5V (for DDC)
10	SG	Sync GND
11	NC	None
12	SDA	DDC Data
13	HS	Horizontal Sync
14	VS	Vertical Sync
15	SCL	DDC Clock

3.4.4 Video signal cable connector for digital input: 24P DVI-D



Pin No.	Signal Name	Description
1	RX2-	TMDS negative differential input, channel 2
2	RX2+	TMDS positive differential input, channel 2
3	GND	Logic Ground
4	RX4-	Reserved. No connection
5	RX4+	Reserved. No connection
6	SCL	DDC2B Clock
7	SDA	DDC2B Data
8	VS	Reserved. No connection
9	RX1-	TMDS negative differential input, channel 1
10	RX1+	TMDS positive differential input, channel 1
11	GND	Logic Ground
12	RX3-	Reserved. No connection
13	RX3+	Reserved. No connection
14	+5V	Power
15	GND	Logic Ground
16	HP	SENSE Pin, Pull High
17	RX0-	TMDS negative differential input, channel 0
18	RX0+	TMDS positive differential input, channel 0
19	GND	Logic Ground
20	RX5-	Reserved. No connection
21	RX5+	Reserved. No connection
22	GND	Logic Ground
23	RXC+	TMDS positive differential input, reference clock
24	RXC-	TMDS negative differential input, reference clock

3.5. ELECTRICAL SPECIFICATIONS

3.5.1 Standard conditions

Display area (HxV)	376.32 x 301.06 mm
Video signal level	0.7 Vpp
Contrast	80
Brightness	100
Ambient	25 +/- 5 C degrees
Input voltage	AC 230,50Hz
Warming up time	More than 30
Display mode	1280 x 1024

3.5.2 POWER

3.5.2.1 Power supply

Input voltage: 100 - 240 V AC
Input current: max. 0.8 Arms
Output voltage: 12VDC, 3.25A
Frequency range: 47 - 63 Hz
Inrush current: Shall be less than the ratings of critical components (including fuse, rectifiers and surge limiting device) for all conditions of line in voltage.

Maximum power consumption: 45 Watts

3.5.2.2 Power Management

The Power Management System complies with TCO ‘03 standards.

MODE	H-SYNC	V-SYNC	COLOR OF POWER LED	POWER CONSUMPTION	RECOVERY TIME
On	Active	Active	Green	< 45 Watts	-
Off	Inactive	Inactive	Amber	< 1 Watts	< 5 seconds

Remark: In case of “no signal“ Power LED must be amber.
At first power on w/o signal LED will be green + message on screen.

3.5.3 Signal level and input impedance

3.5.3.1 Video Signal level

This LCD display is adjusted at the factory using 0,7 Vpp Video signal.

3.5.3.2 Sync Signal level

H/V Separate: TTL level

3.5.3.3 Input impedance

Analog video input: 75 ohms

Digital video input: 100 ohms

Sync input: > 1 k ohms

3.5.4 Display Area

Display area : 376.32 x 301.056 mm

3.5.5 Preset Timings

The product has 32 memory modes in total. 15 modes are preset-and 17 modes are user definable.

	1	2
Format	640x350@70Hz	720x400@70Hz
Pixel Clock(MHz)	25.176	28.320
Horizontal		
Sync Polarity	P	N
Frequency(KHz)	31.470	31.467
Total Time(pixels)	800	900
Display Time(pixels)	640	720
Sync Width(pixels)	96	108
Back Porch(pixels)	48	54
Front Porch(pixels)	16	18
Blank time(pixels)	160	180
Vertical		
Sync Polarity	N	P
Frequency(Hz)	70.089	70.082
Total Time(lines)	449	449
Display Time(lines)	350	400
Sync Width(lines)	2	2
Back Porch(lines)	60	35
Front Porch(lines)	37	12
Blank time(lines)	99	49

	3	4	5
Format	640X480@60Hz	640x480@72Hz	640x480@75Hz
Pixel Clock(MHz)	25.175	31.500	31.500
Horizontal			
Sync Polarity	N	N	N
Frequency(KHz)	31.469	37.861	37.500
Total Time(pixels)	800	832	840
Display Time(pixels)	640	640	640
Sync Width(pixels)	96	40	64
Back Porch(pixels)	40	120	120
Front Porch(pixels)	8	16	16
Blank time(pixels)	144	176	200
Vertical			
Sync Polarity	N	N	N
Frequency(Hz)	59.940	72.809	75.00
Total Time(lines)	525	520	500
Display Time(lines)	480	480	480
Sync Width(lines)	2	3	3
Back Porch(lines)	25	20	16
Front Porch(lines)	2	1	1
Blank time(lines)	29	24	20

	6	7	8	9
Format	800x600@56Hz	800x600@60Hz	800x600@72Hz	800x600@75Hz
Pixel Clock(MHz)	36.000	40.000	50.000	49.500
Horizontal				
Sync	P	P	P	P
Frequency(KHz)	35.156	37.879	48.077	46.875
Total Time(pixels)	1024	1056	1040	1056
Display Time(pixels)	800	800	800	800
	72	128	120	80
Back Porch(pixels)	128	88	64	160
Front Porch(pixels)	24	40	56	16
Blank time(pixels)	224	256	240	256
Vertical				
Sync Polarity	P	P	P	P
Frequency(Hz)	56.250	60.317	72.188	75.000
Total Time(lines)	625	628	666	625
Display Time(lines)	600	600	600	600
Sync Width(lines)	2	4	6	3
Back Porch(lines)	22	23	23	21
Front Porch(lines)	1	1	37	1
Blank time(lines)	25	28	66	25

	10	11	12	13
Format	1024x768@60Hz	1024X768@70Hz	1024X768@72Hz	1024X768@75Hz
Pixel Clock(MHz)	65.00	75.000	78.000	78.750
Horizontal				
Sync Polarity	N	N	N	P
Frequency(KHz)	48.363	56.476	58.036	60.023
Total Time(pixels)	1344	1328	1344	1312
Display Time(pixels)	1024	1024	1024	1024
Sync Width(pixels)	136	136	132	96
Back Porch(pixels)	160	144	164	176
Front Porch(pixels)	24	24	24	16
Blank time(pixels)	320	304	320	288
Vertical				
Sync Polarity	N	N	N	P
Frequency(Hz)	60.004	70.069	71.916	75.029
Total Time(lines)	806	806	807	800
Display Time(lines)	768	768	768	768
Sync Width(lines)	6	6	6	3
Back Porch(lines)	29	29	30	28
Front Porch(lines)	3	3	3	1
Blank time(lines)	38	38	39	32

	14	15	NA	NA
Format	1280x1024@60Hz	1280x1024@75Hz		
Pixel Clock(MHz)	108.000	135.000		
Horizontal				
Sync Polarity	P	P		
Frequency(KHz)	63.981	79.976		
Total Time(pixels)	1688	1688		
Display Time(pixels)	1280	1280		
Sync Width(pixels)	112	144		
Back Porch(pixels)	248	248		
Front Porch(pixels)	48	16		
Blank time(pixels)	408	408		
Vertical				
Sync Polarity	P	P		
Frequency(Hz)	60.020	75.025		
Total Time(lines)	1066	1066		
Display Time(lines)	1024	1024		
Sync Width(lines)	3	3		
Back Porch(lines)	38	38		
Front Porch(lines)	1	1		
Blank time(lines)	42	42		

3.5.6 General performance

3.5.6.1 Maximum pixel clock

135 MHz

3.5.6.2 Maximum luminance

Test conditions: 100% all white pattern, brightness set to Maximum

typical: 250 cd/m²

min: 200 cd/m²

3.5.6.3 Brightness variation

Value	75 % Variation (C / A x 100)
Condition	Display image: Full white Brightness: Maximum Contrast: Maximum A: Luminance at center

3.5.6.4 Contrast ratio (CR)

Value	CR= B / A
Conditions	Contrast: Maximum Brightness: max B: Full white pattern A: Full black pattern

3.6. ENVIRONMENTS

The environmental conditions are in accordance to IEC 721

Operating:

Temperature: 0°C - +40° C

Humidity: 20% - 80%

Height: 3658 m

Air pressure: 700 - 1060 mbar

Storage (unpacked)

Temperature: -20°C - +60° C

Humidity: 8% - 95%

Height: 12193 m

Air pressure: 700 - 1060 mbar

Transport (packed)

Temperature: -20°C - +60° C

Humidity: 8% - 95%

Height: 12000 m

3.7. REGULATORY STANDARDS

3.7.1 Safety standards

This monitor applies to various safety & EMI standards. May refer to the logo label.

3.7.2 EMC standards

CE

3.8. OTHERS

UL, cUL, CB, TUV GS, Gost, TCO03,

3.9. P0WER CORD

Northern Hemisphere Version: UL / CSA approved power cord.

European: VDE approved power cord.

3.10. SIGNAL CABLE

Signal cable with Mini D-Sub 15P connectors. Length: 1.8 meter.

3.11. RELIABILITY

> 30000hrs (demonstrated MTBF)

4. THEORY OF OPERATION

This section describes the function of the LCD monitor per functional block.
The Belinea 101910 monitor includes MB board (including audio board function inside), power board and button board.

4.1 MB BOARD

The MB board is a two-layer, single-landed design with ground and ground planes provided.

The VGA cable is a signal cable that contains video signal, sync signal and DDC signal from PC VGA adapter.

This system board consists of 3 functional areas: flat panel controller, Micro controller and audio controller.

4.1.1 Flat panel controller…… Mstar MST8131A (U3)

The heart of the system board is Mstar MST8131A. The MST8131A is a graphics processing IC for LCD monitors. It provides some control functions required for LCD panel. On-chip functions include a high-speed triple-ADC, PLL, high scaling engine and OSD controller.

a) Clock Generation :

Crystal Input Clock (XTALI and XTAL). This is the input pair to an internal crystal oscillator and corresponding logic. A 14.318 MHz crystal is recommended.

b) Hardware Reset (Pin 32)

Hardware Reset signal is generated by MTV312 (U5/Pin 26). It asserts a reset signal at least 1 ms.

c) Analog to Digital Converter

The MST8131A chip has three ADC's (analog-to-digital converters), one for each color (red, green and blue). The analog RGB signals are connected to MST8131A as described below

Pin Name	Pin Number
Red +	63
Red -	62
Green +	60
Green -	59
Blue +	58
Blue -	57

d) DVI(Digital) receiver :

The MST8131A chip has DVI interface. The digital signals are connected to MST8131A as described below:

Pin Name	Pin Number
DVI input channel + RED	40
DVI input channel - RED	41
DVI input channel + GREEN	43
DVI input channel - GREEN	44
DVI input channel + BLUE	46
DVI input channel - BLUE	47
DVI input Clock Pair +	49
DVI input Clock Pair -	50

e) OSD

The MST8131A has a fully programmable, high-quality OSD controller. The on-chip static RAM (256 different fonts at size of 12X18) stores the cell map and the cell definitions.

f) Inverter Brightness control (PWM0) (Pin 73)

The MST8131A has one PWM output PWM0 (Pin73) to control Inverter Brightness Range.

g) Panel LVDS interface (Pin 102~103, Pin106~113, Pin118~125, Pin128, Pin1)

The MST8131A driver interface is highly programmable. It supports LVDS port for panel.

h) Audio volume control (PWM1) (Pin74)

The MST8131A has one PWM output PWM1 (Pin74) to control audio volume.

4.1.2 Micro controller……MTV312 (U5)

The MYSON MTV312 microcontroller serves as the system microcontroller. That is, it programs the MST8131A and manages other devices in the system such as the keypad, the backlight, LED and audio general purpose input/output pins.

Pin number	Pin name	Pin function
23	**P1.5**	**Key-Sel/Auto**
22	**P1.4**	**Key-Menu**
16	**P6.2**	**Key-Left**
21	**P1.3**	**Key-Power on/off**
41	**P5.4**	**LED-Green**
9	**P6.3**	**Key-Right**
25	**P1.7**	**Key-Down**
24	**P1.6**	**Key-Up**
29	**P3.0/RXD/HSCL**	**SCL-VGA/RxD (Debug)**

28	**P3.1/TXD/HSDA**	**SDA-VGA/Txd (Debug)**
19	**P3.2/INT0**	**INT**
18	**P1.1**	**SDA(Debug)**
20	**P1.2**	**SCL(Debug)**
26	**P6.1/AD1**	**RESET**
42	**P5.3**	**LED-Orange**
37	**P4.1**	**Audio-Mute**
40	**P5.5**	**Audio-Stby-Power**
36	**P4.0**	**Inverter On/Off**
3	**P5.0**	**Panel power On/Off**

4.1.3 Audio controller TDA7496L (AU1)

The TDA7496L is a stereo 2W+2W class AB power amplifier. Features of the TDA7496L include linear volume(pin6), Stand-by(pin11) and mute(pin12) functions.

Audio output characteristics

Audio amplifier	ST TDA7496
Maximum Audio Output Power	1W 2 @<3% Distortion , Speaker 1W2
Line Input Impedance	10K ohm

4.2 Power Module

The power module includes an Inverter and Power regulator. The electrical specification described as following;

4.2.1 Power characteristics.

Input	**Rated Input Voltage**	**90~240 Vac,50/60Hz**
	Operation Input Voltage Range	**90~264 Vac,47~63Hz**
	Max Input AC Current	**< 1.2A**
	Efficiency	**12Vdc load 3.5A** **Brightness Voltage from 0.3~3Vdc** **ON/OFF Voltage: High(3.3Vdc)/Low(0Vdc)**
	Brightness Voltage (Vadj)	**0.3Vdc(Max) ~ 3Vdc(Min)**
	On/Off Voltage	**High(3.3Vdc)/Low(0Vdc)**
Output	**Static Output Characteristics**	**12V/3.5A Output: 11.4Vdc ~ 12.6Vdc**

4.2.2 Inverter output characteristics.

Rated Output Kick-off Voltage	**1500 ~ 2000 Vrms**
Rated output Voltage	**720Vrms**
Rated Output Frequency	**40 ~ 60 KHz**
Rated Output Current per tube	**7mArms**

4.2.4 Power module of connector definition ;

CN110 ; Pin 1 & 2 ----> Vdc Output (12V +/- 5%)
Pin 3 & 4 ---------> GND
Pin 5 ---------> Brightness Control Voltage
Pin 6 ---------> On /Off ("High" set Lamp on)

CN1 ~ CN4 ; Pin 1 ---------> HV (High Voltage for CCFL)
Pin 2 ---------> Return (Low Voltage for CCFL)

5. CONTROL LOCATION

Button Define

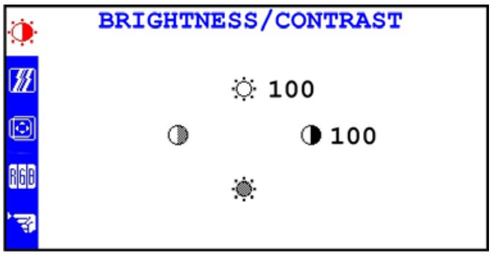
1	MENU	OSD Menu	Trigger OSD Main Menu / Clear OSD
2	△	UP	1. Select OSD Main Menu Item 2. Trigger Brightness/Contrast Menu.
3	▽	DOWN	1. Select OSD Main Menu Item 2. Trigger Brightness/Contrast Menu.
4	⏻	POWER	Switch Power ON/OFF
5	◁	LEFT	1. Decrease Menu Item value 2. Trigger Volume Menu.
6	▷	RIGHT	1. Increase Menu Item value 2. Trigger Volume Menu.
7	SELECT/AUTO	SELECT/ AUTO	1. Switch OSD Main Menu focus status. 2. Perform Auto configuration.

LED Status

Color	*Status Description*
Green	Normal status
Amber	Enter Sleep Mode status or use “Power + Auto” key enter factory mode

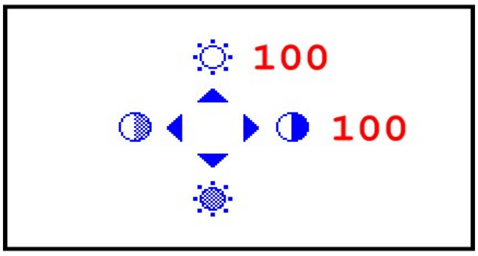
Dialog Overview

- **OSD Main Menu**



When user press the **Menu** key under none OSD status will trigger this menu appear for detail parameters adjust. This menu will display about 45 seconds if no one press other key, otherwise will refresh display time.

- **Brightness/Contrast Menu**



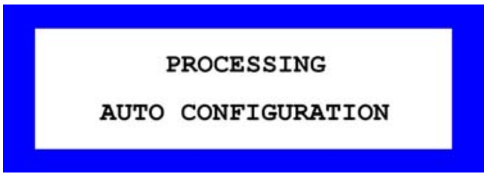
When user press the **Up** or **Down** keys under none OSD status will trigger this menu appear for Brightness and Contrast adjust. This menu will display about 45 seconds.

● Volume Menu



When user press the **Left** or **Right** keys under none OSD status will trigger this menu appear for Volume adjust. Use the **Left & Right** keys adjust the volume value, and use the **Up & Down** keys switch the Mute status. This menu will display about 45 seconds.

Auto Configuration



When user press the **select/Auto** key under none OSD status will trigger this dialog appears and perform Auto Configuration procedure.

● Mode Information



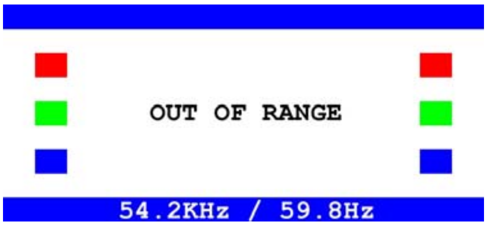
When Display timing changed, this dialog will appear about 5 seconds. And this feature only enable when “Information” indicates On in OSD’s other page of main menu.

● No Signal



When user not support the video signal from the cable this dialog will appear about 20 seconds. And then enter the Sleep mode. One special case was in factory mode, the display time length will become 5 seconds for testing the power consumer.

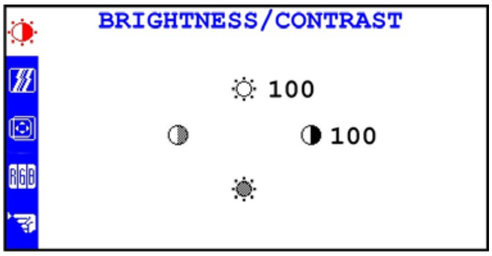
● Out Of Range



When user input the video signal out of spec this dialog will appear about 20 seconds. And then enter the Sleep mode.

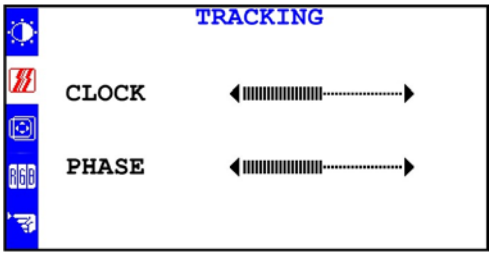
OSD Main Menu

- **Brightness & Contrast Adjustment**



Brightness (Up&Down):
Adjust the brightness of the display.
Contrast (Left&Right):
Adjust the difference between the light and dark areas.

- **Tracking Adjustment**

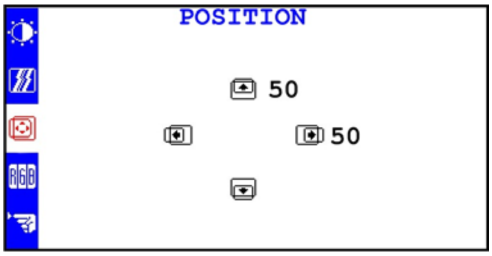


CLOCK:
Adjust to minimize any vertical bars or stripes visible on the screen background. The horizontal screen size will also change.

PHASE:
Adjust to remove any horizontal distortion, and clear or sharpen the image of characters.

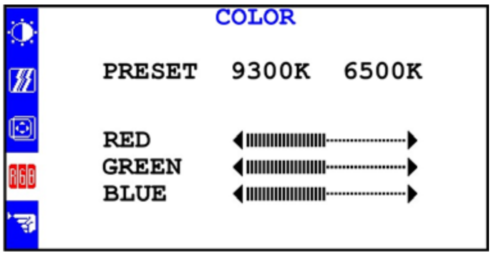
-

- **Position Adjustment**



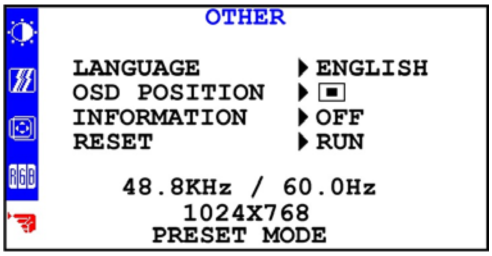
V-Position:
Adjust the vertical position of the picture.
H-Position:
Adjust the horizontal position of the picture.

- **Color Adjustment**



There are four items for color adjustment:
9300K: Bluish white
6500K: Reddish white
User defined:
Red, Green, Blue. Adjust to set your own color level.

Other



LANGUAGE:

Multi- Language selection

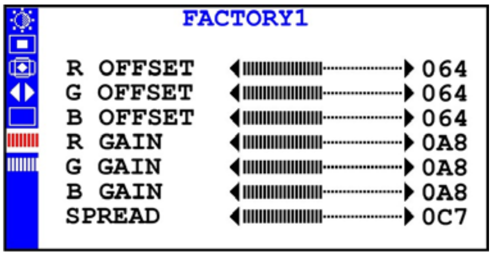
OSD POSITION:

Adjust the OSD window position on the screen.

INFORMATION:

Display Information Dialog or not when input timing changed.

Factory1 Adjustment



This page only visible in factory mode

R,G,B OFFSET:

Adjust current RGB cut off level

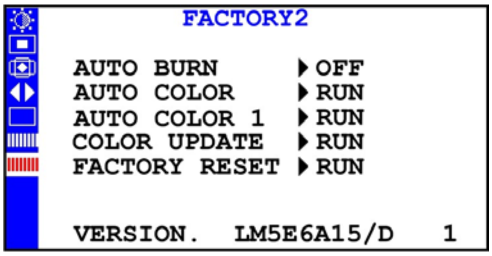
R,G,B GAIN:

Adjust current RGB Driver value.

SPREAD:

Adjust chip set internal frequency spread effect for EMI testing.

- **Factory2 Adjustment**



This page only visible in factory mode

AUTO BURN:
Use the chip set internal pattern for hot running monitor panel and inverter.

AUTO COLOR:
Perform Auto Balance measurement.

AUTO COLOR 1:
Perform Auto Balance measurement by chip set internal signal. And reference these values to initial all other color temperature detail parameters.

COLOR UPDATE:
Force presently R,G,B offset and gain parameters update to currently temperature memory address.

FACTORY RESET:
Recall to factory setting and power off immediately.

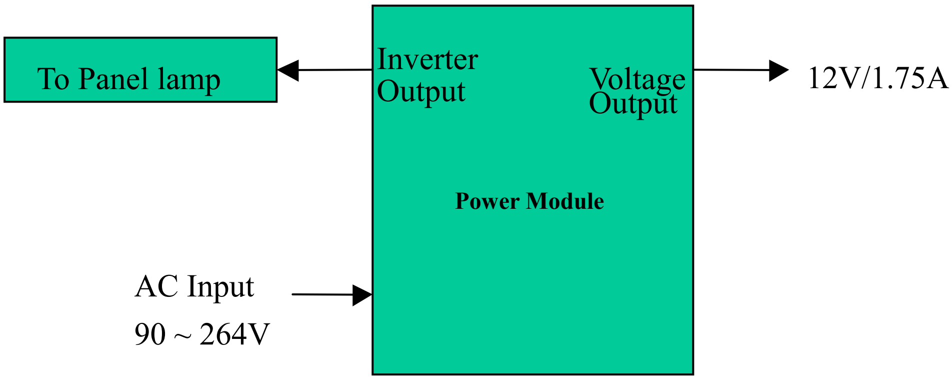
VERSION:
Display F/W version and panel vender and DDC serial no.

6. NECESSARY EQUIPMENT LIST

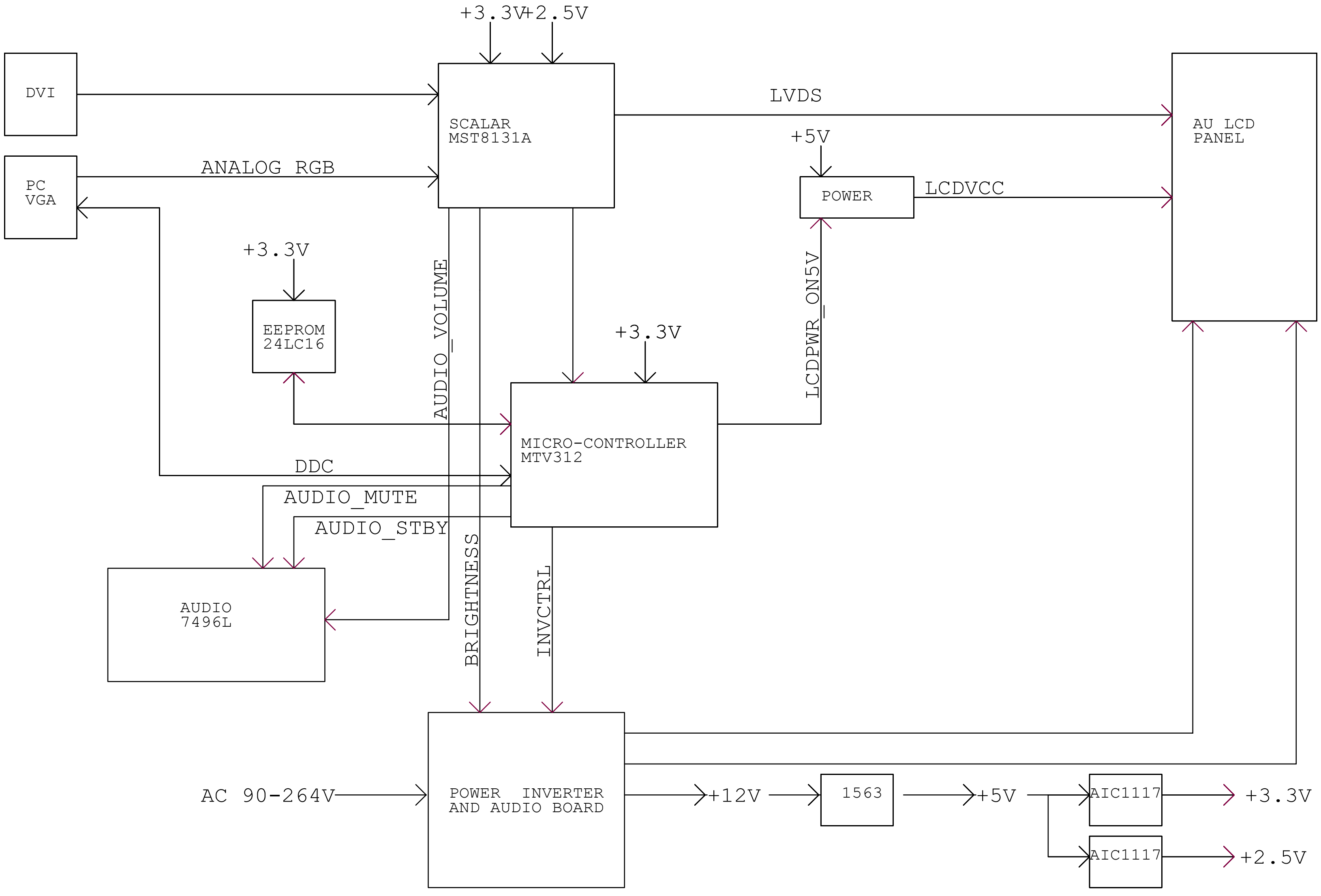
	Item
1	Personal Computer with Windows 98/Me/XP
2	Luminance Meter Minolta CA 110
3	Video Generator : Chroma 2000,2135,2250 or equivalent
4	like test program(Display Mate)
5	Color Analyzer : Minolta CA110, Chroma or equivalent
5	Watt / Power Meter
7	10 Times Magnifier
8	Multimeter
9	Oscilloscope

7. BLOCK DIAGRAM

8.1 Power module

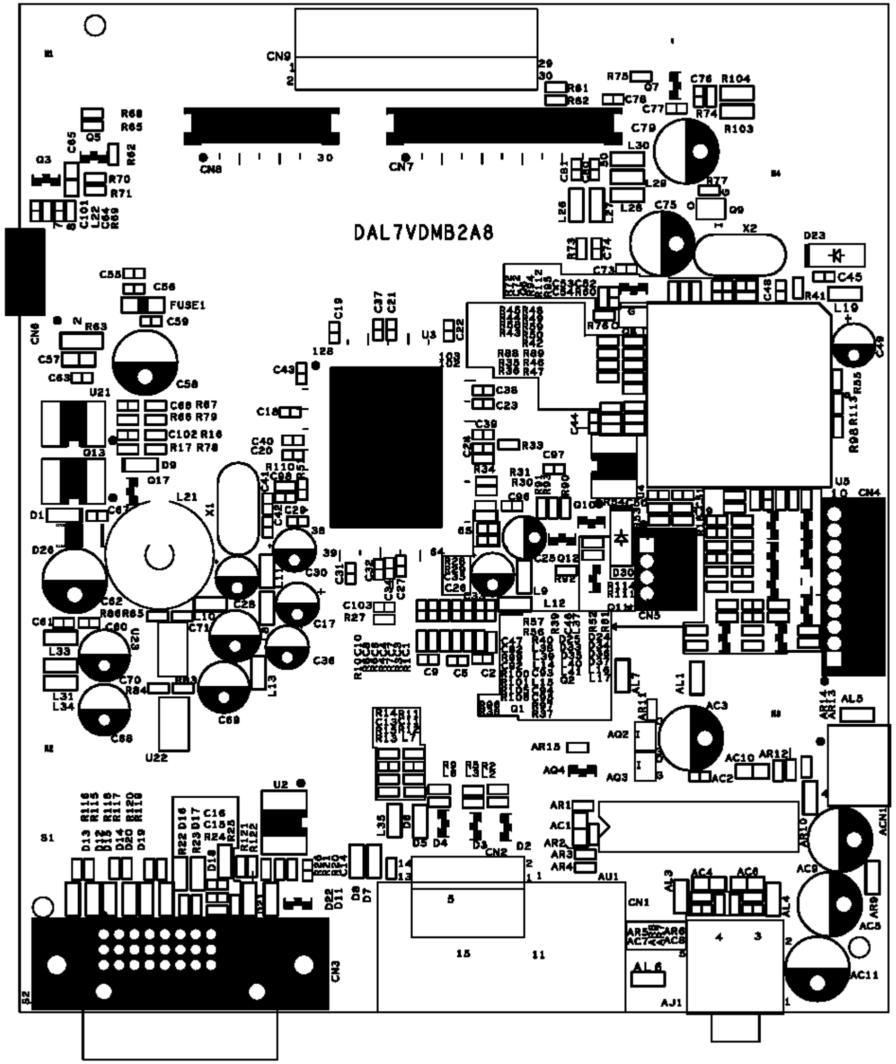


8.2 Main Board

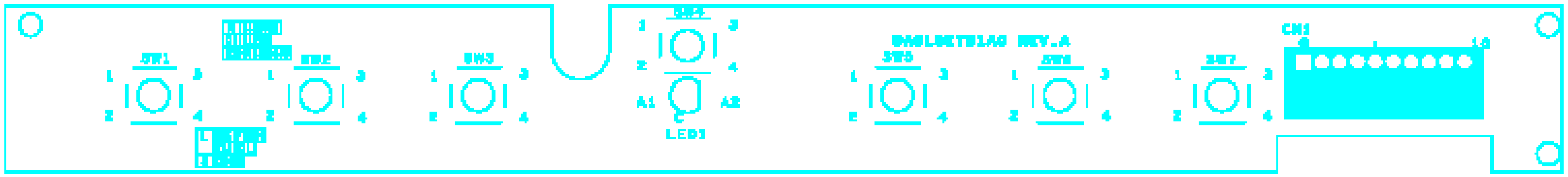


8. CONDUCTOR VIEW

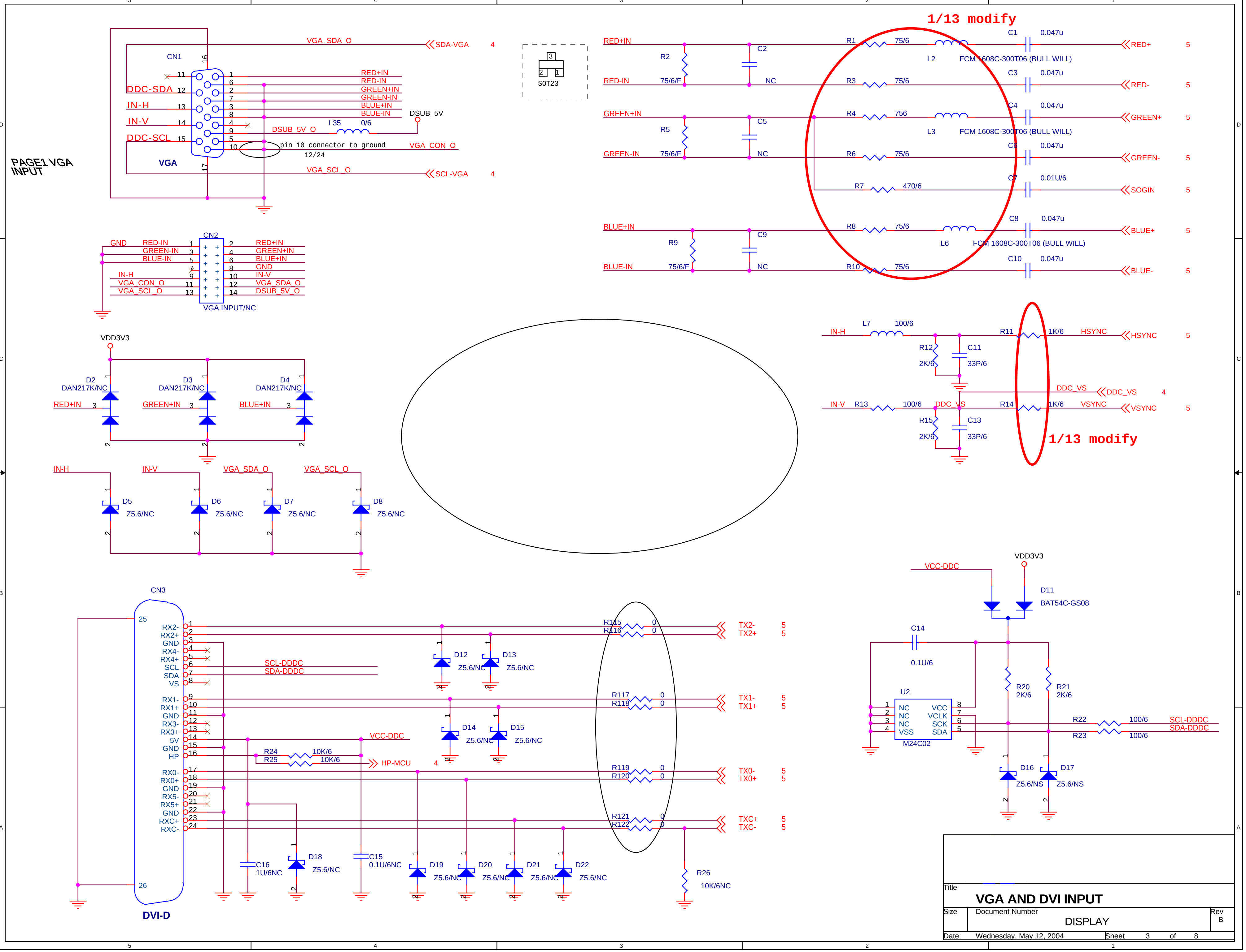
Main Board Silkscreen


DAL7VDMB2A8

Button Board Silkscreen



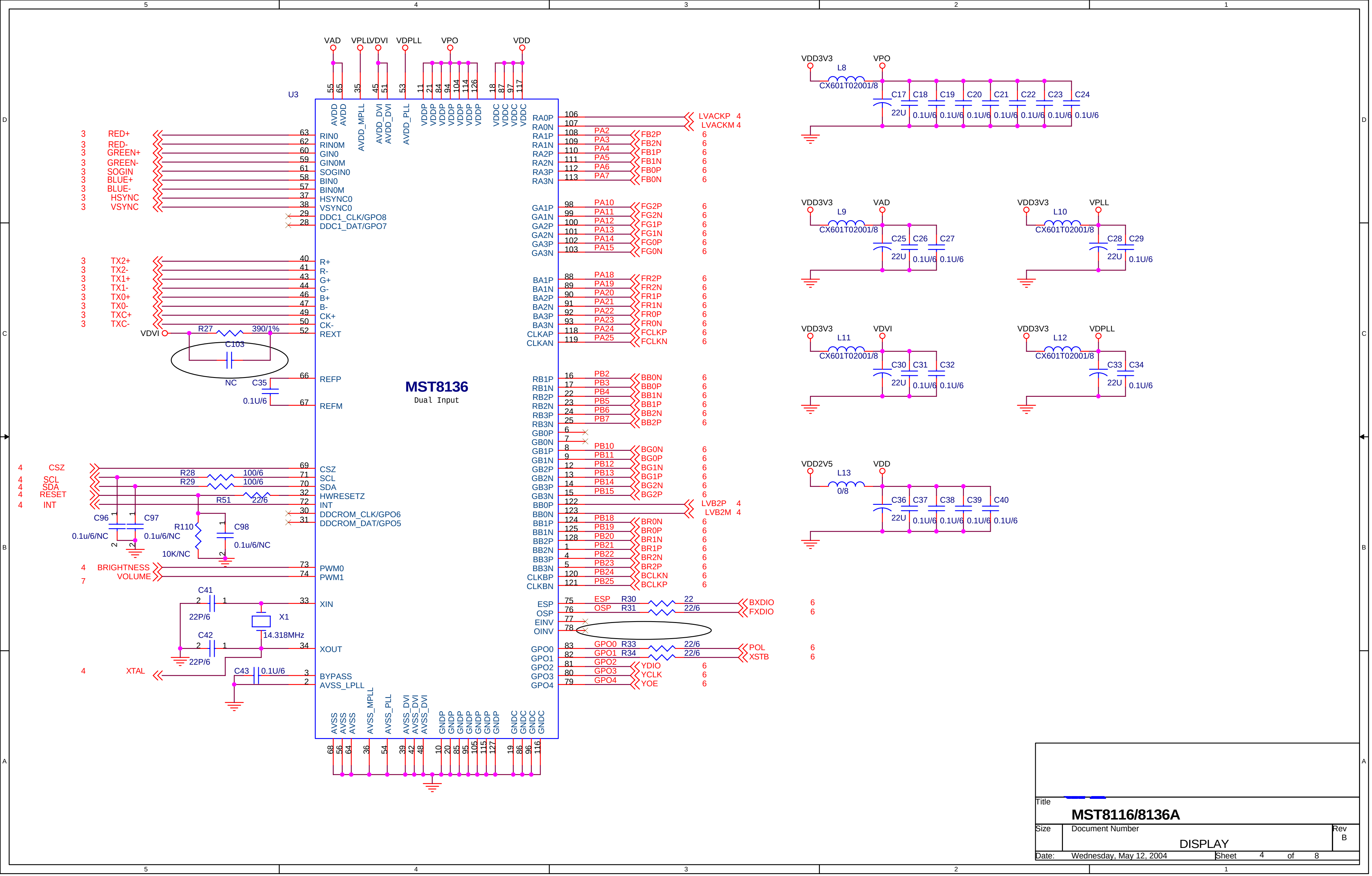
9. SCHEMATIC DIAGRAM Main Board



Title
VGA AND DVI INPUT

Size	Document Number	Rev
	DISPLAY	B

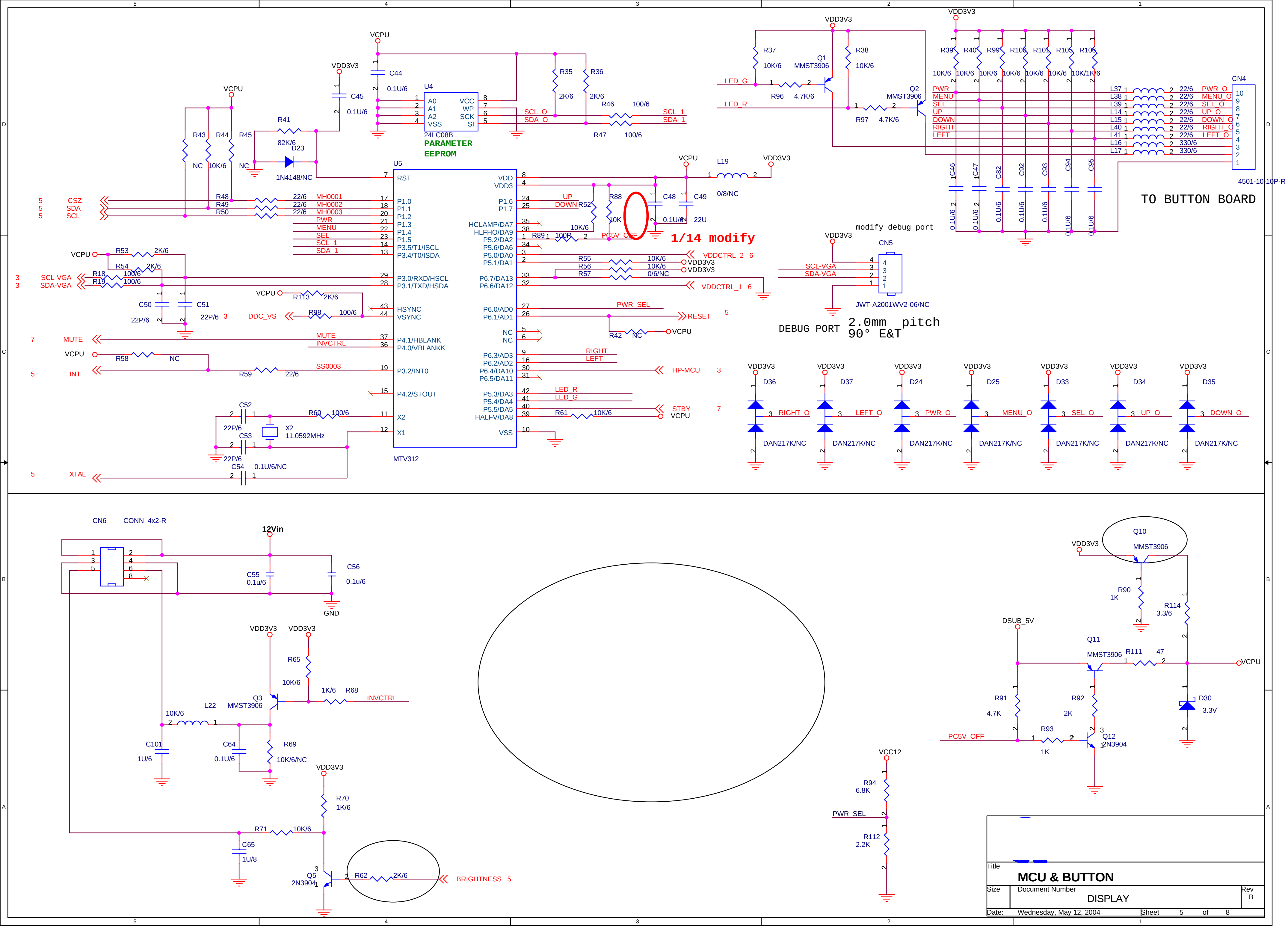
Date: Wednesday, May 12, 2004 Sheet 3 of 8



Title
MST8116/8136A

Size	Document Number	Rev
	DISPLAY	B

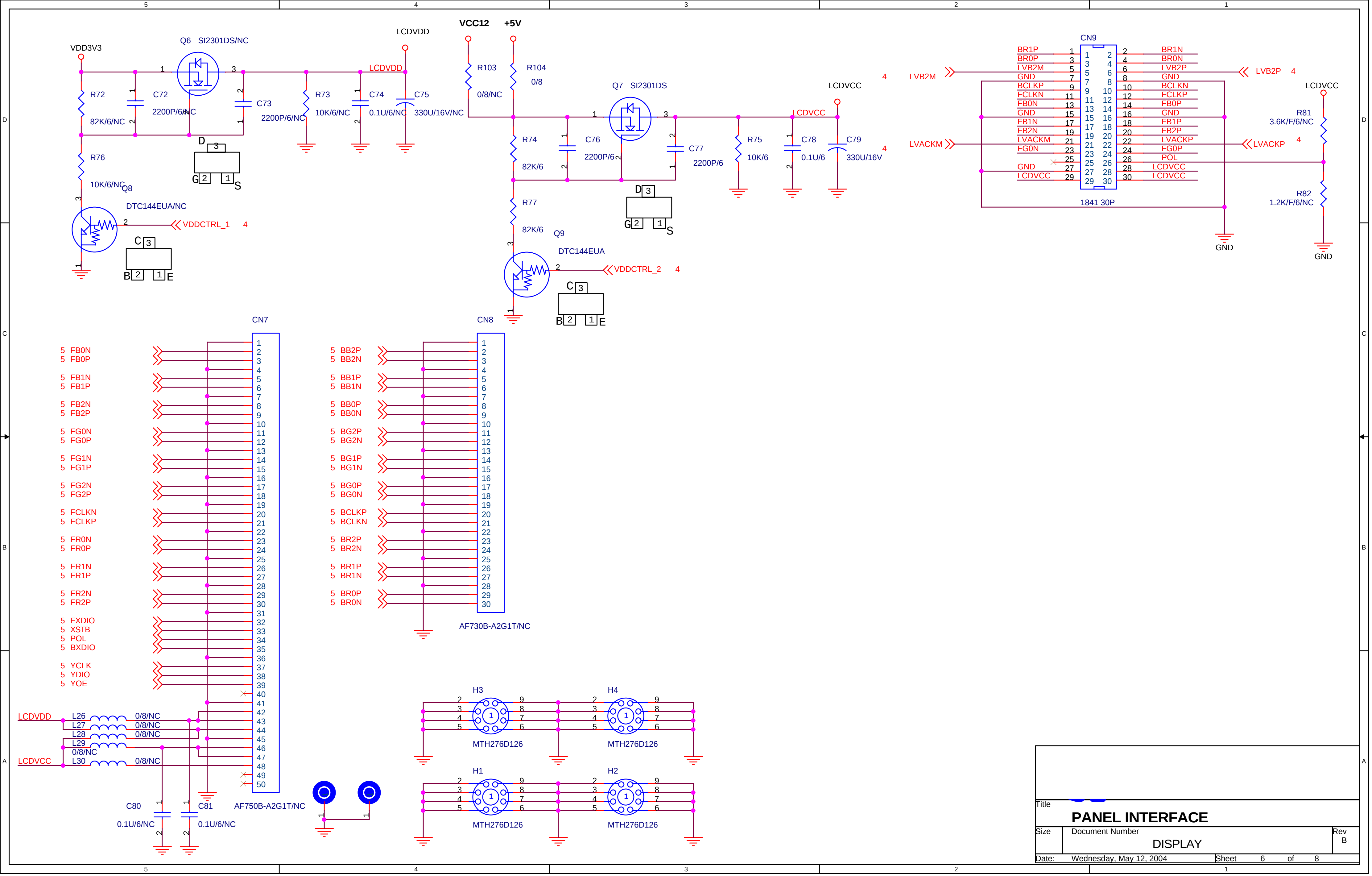
Date: Wednesday, May 12, 2004 Sheet 4 of 8



Title
MCU & BUTTON

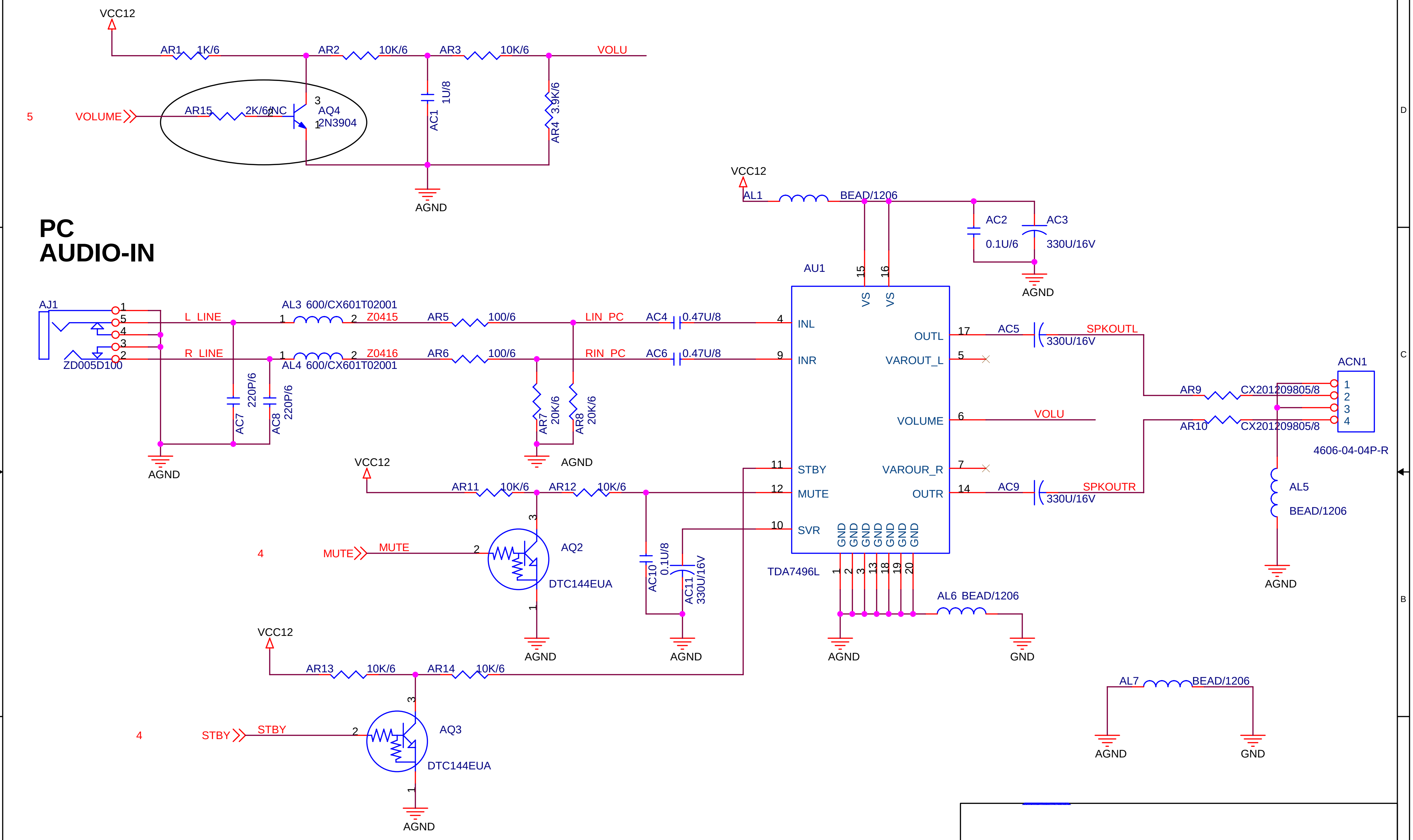
Size	Document Number	Rev
	DISPLAY	B

Date: Wednesday, May 12, 2004 Sheet 5 of 8

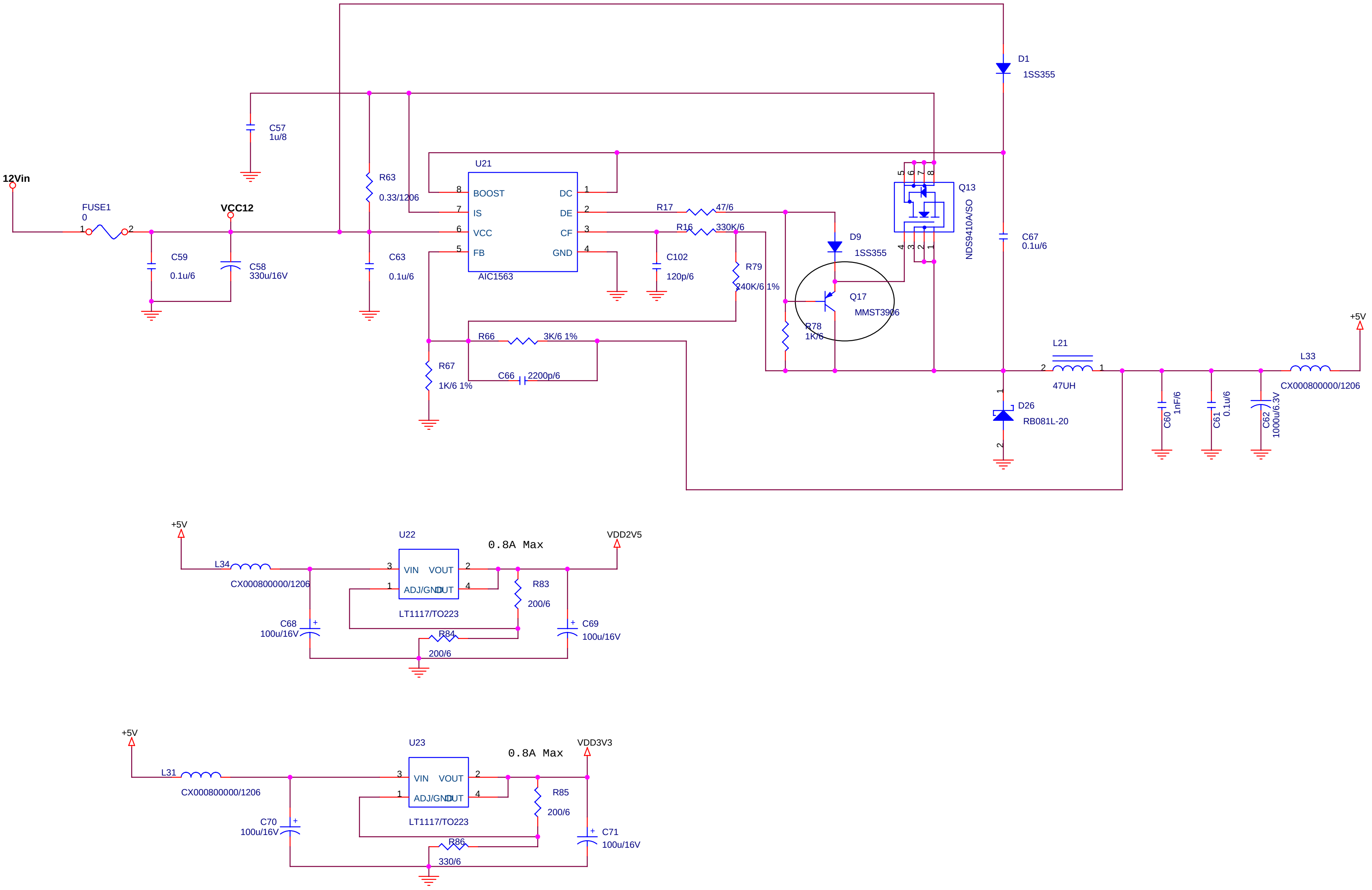


VDD3V3
Q6 SI2301DS/NC
LCDVDD
VCC12
+5V
R103
R104
0/8/NC
0/8
R72
82K/6/NC
C72
2200P/6/NC
C73
2200P/6/NC
R73
10K/6/NC
C74
0.1U/6/NC
C75
330U/16V/NC
R76
10K/6/NC
Q8
DTC144EUA/NC
VDDCTRL_1 4
Q7 SI2301DS
R74
82K/6
C76
2200P/6
C77
2200P/6
R75
10K/6
C78
0.1U/6
C79
330U/16V
LCDVCC
R77
82K/6
Q9
DTC144EUA
VDDCTRL_2 4
CN9
BR1P BR0P LVB2M GND BCLKP FCLKN FB0N GND FB1N FB2N LVACKM FG0N GND LCDVCC
BR1N BR0N LVB2P GND BCLKN FCLKP FB0P GND FB1P FB2P LVACKP FG0P POL LCDVCC LCDVCC
LVB2M 4
LVB2P 4
LVACKM 4
LVACKP 4
1841 30P
R81
3.6K/F/6/NC
R82
1.2K/F/6/NC
GND
CN7
5 FB0N
5 FB0P
5 FB1N
5 FB1P
5 FB2N
5 FB2P
5 FG0N
5 FG0P
5 FG1N
5 FG1P
5 FG2N
5 FG2P
5 FCLKN
5 FCLKP
5 FR0N
5 FR0P
5 FR1N
5 FR1P
5 FR2N
5 FR2P
5 FXDIO
5 XSTB
5 POL
5 BXDIO
5 YCLK
5 YDIO
5 YOE
LCDVDD
LCDVCC
L26 0/8/NC
L27 0/8/NC
L28 0/8/NC
L29 0/8/NC
L30 0/8/NC
C80
0.1U/6/NC
C81
0.1U/6/NC
AF750B-A2G1T/NC
CN8
5 BB2P
5 BB2N
5 BB1P
5 BB1N
5 BB0P
5 BB0N
5 BG2P
5 BG2N
5 BG1P
5 BG1N
5 BG0P
5 BG0N
5 BCLKP
5 BCLKN
5 BR2P
5 BR2N
5 BR1P
5 BR1N
5 BR0P
5 BR0N
AF730B-A2G1T/NC
H3 MTH276D126
H4 MTH276D126
H1 MTH276D126
H2 MTH276D126
Title
PANEL INTERFACE
Size
Document Number
DISPLAY
Rev
B
Date: Wednesday, May 12, 2004
Sheet 6 of 8

PC AUDIO-IN

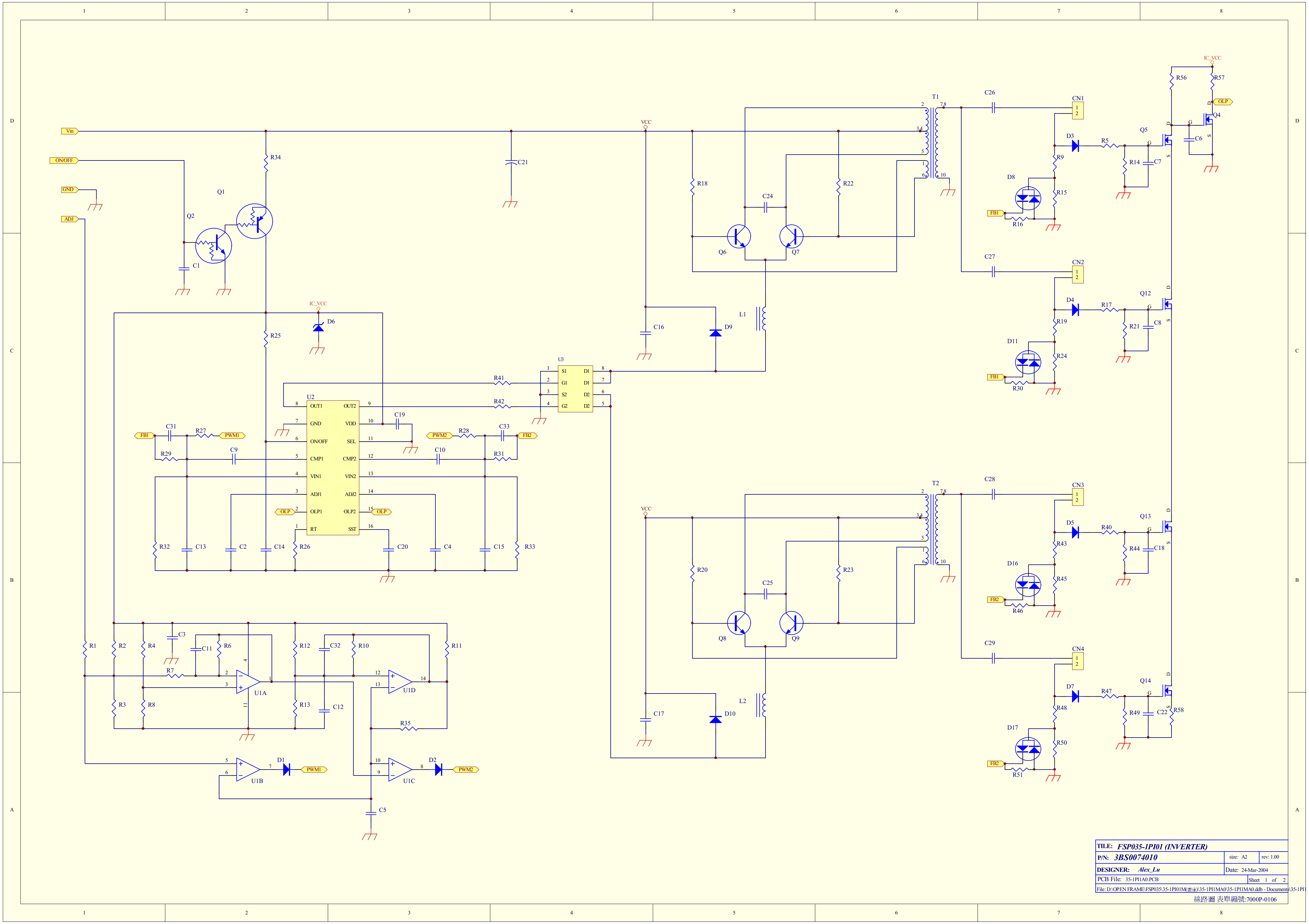


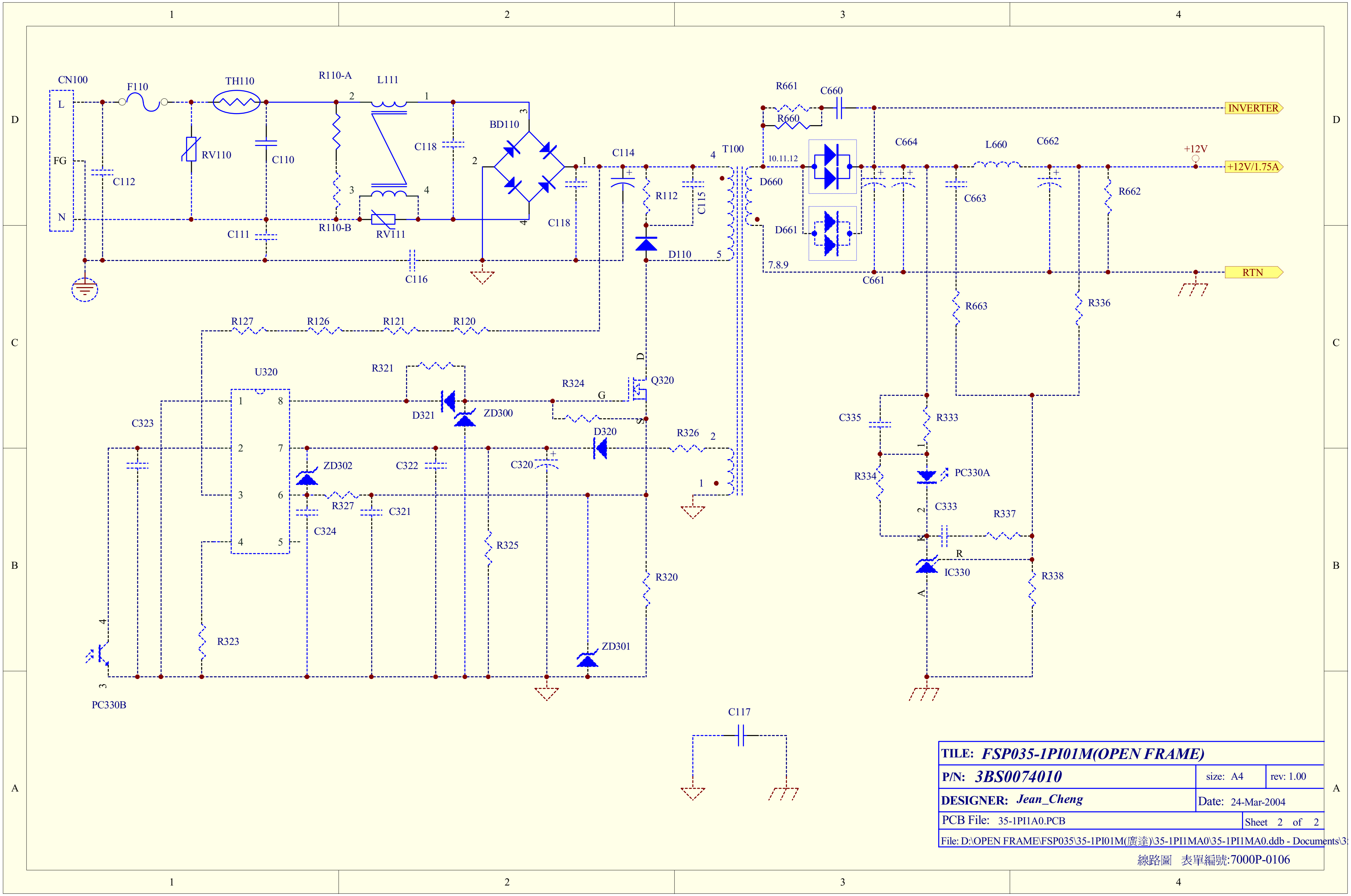
Title	Audio	
Size	Document Number: DISPLAY	Rev B
Date: Wednesday, May 12, 2004	Sheet 7 of 8	

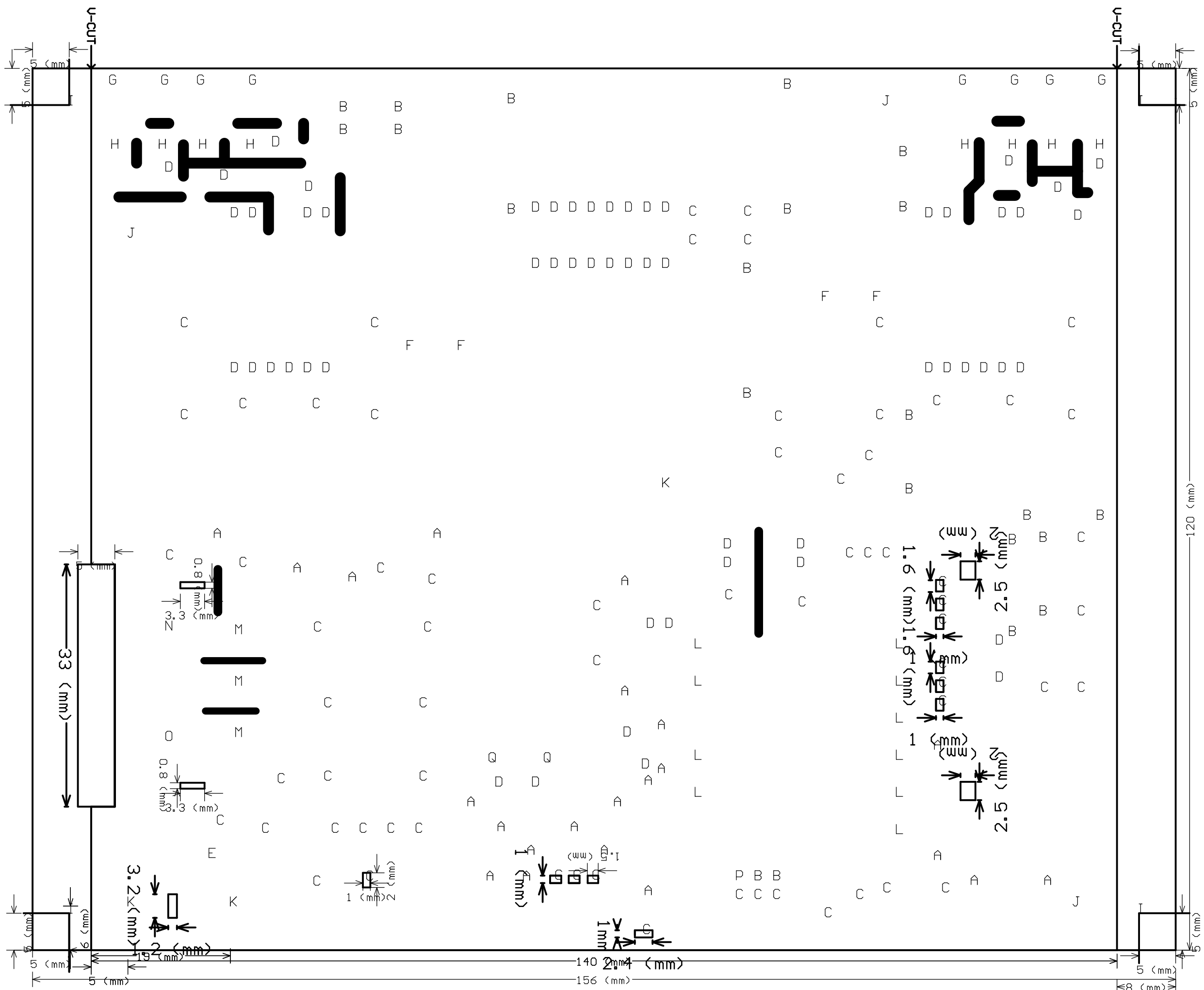


Title	**POWER**
Size	Document Number: DISPLAY — SCHEMATIC1
Rev	B
Date:	Wednesday, May 12, 2004
Sheet	8 of 8

10. SCHEMATIC DIAGRAM POWER DB



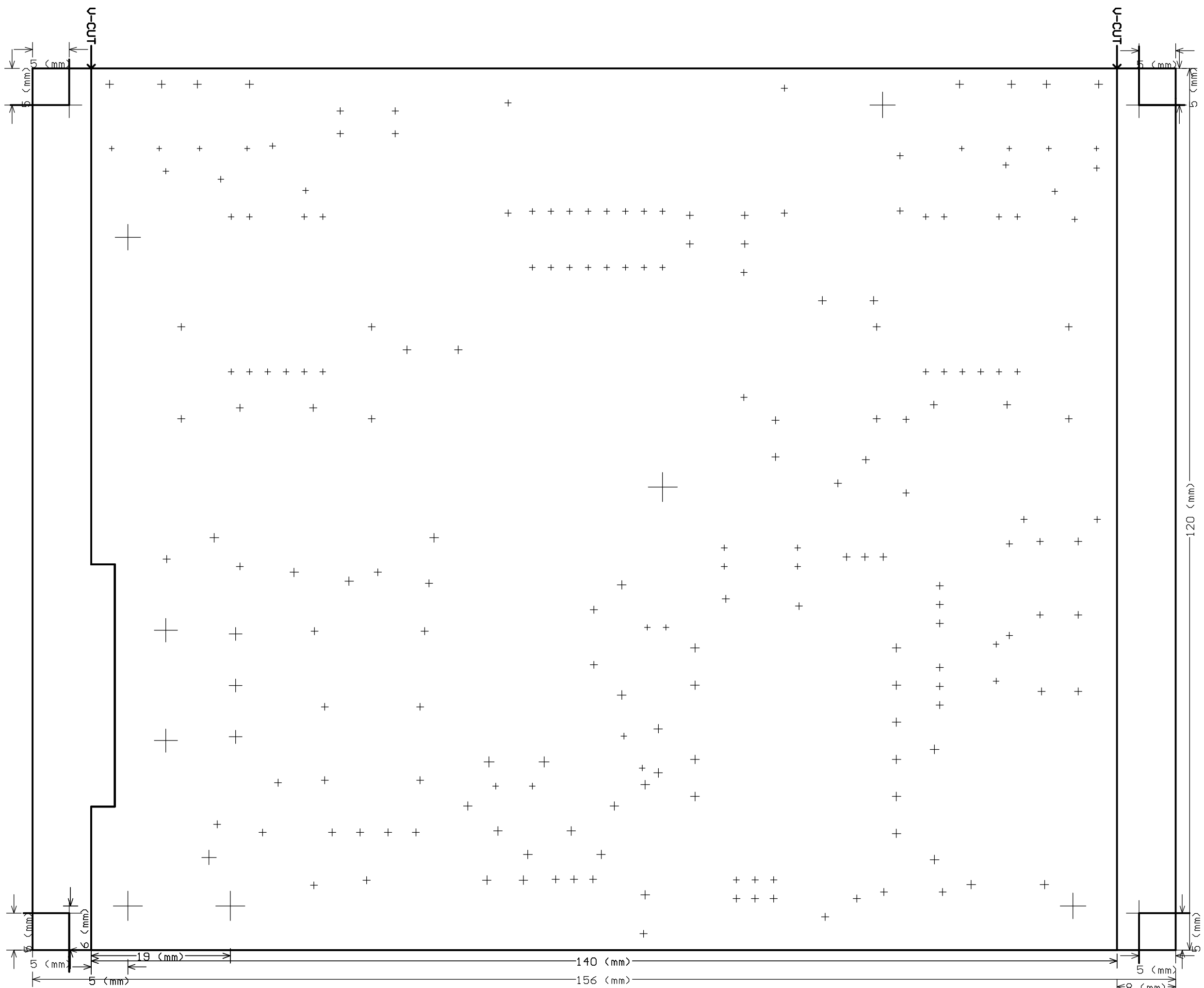

CN100
L
FG
N
F110
TH110
RV110
C110
C112
C111
R110-A
R110-B
L111
RV111
C118
C118
BD110
C114
C116
R112
C115
D110
T100
R127
R126
R121
R120
U320
R321
D321
ZD300
R324
Q320
D
G
S
D320
R326
C323
ZD302
C322
C320
R327
C321
C324
R325
R320
R323
ZD301
PC330B
R661
C660
R660
D660
D661
10.11.12
7.8.9
C661
C664
L660
C662
C663
R662
+12V
INVERTER
+12V/1.75A
RTN
R663
R336
C335
R333
PC330A
R334
C333
R337
IC330
R338
C117
TILE: FSP035-1PI01M(OPEN FRAME)
P/N: 3BS0074010
size: A4
rev: 1.00
DESIGNER: Jean_Cheng
Date: 24-Mar-2004
PCB File: 35-1PI1A0.PCB
Sheet 2 of 2
File: D:\OPEN FRAME\FSP035\35-1PI01M(廣達)\35-1PI1MA0\35-1PI1MA0.ddb - Documents\3
線路圖 表單編號:7000P-0106



H	8	27.559mil	0.7mm	PTH
D	56	31.496mil	0.8mm	PTH
P	1	33.465mil	0.85mm	PTH
B	22	35.433mil	0.9mm	PTH
C	67	39.37mil	1mm	PTH
F	4	43mil	1.0922mm	PTH
G	8	43.307mil	1.1mm	PTH
A	22	47.244mil	1.2mm	PTH
L	10	47.244mil	1.2mm	NPTH
Q	2	55.118mil	1.4mm	PTH
M	3	70.866mil	1.8mm	PTH
E	1	78.74mil	2mm	PTH
O	1	125.984mil	3.19999mm	PTH
N	1	125.984mil	3.19999mm	PTH
J	3	137.795mil	3.49999mm	PTH
I	4	137.795mil	3.5mm	PTH
K	3	157.48mil	4mm	PTH
	216	Total		

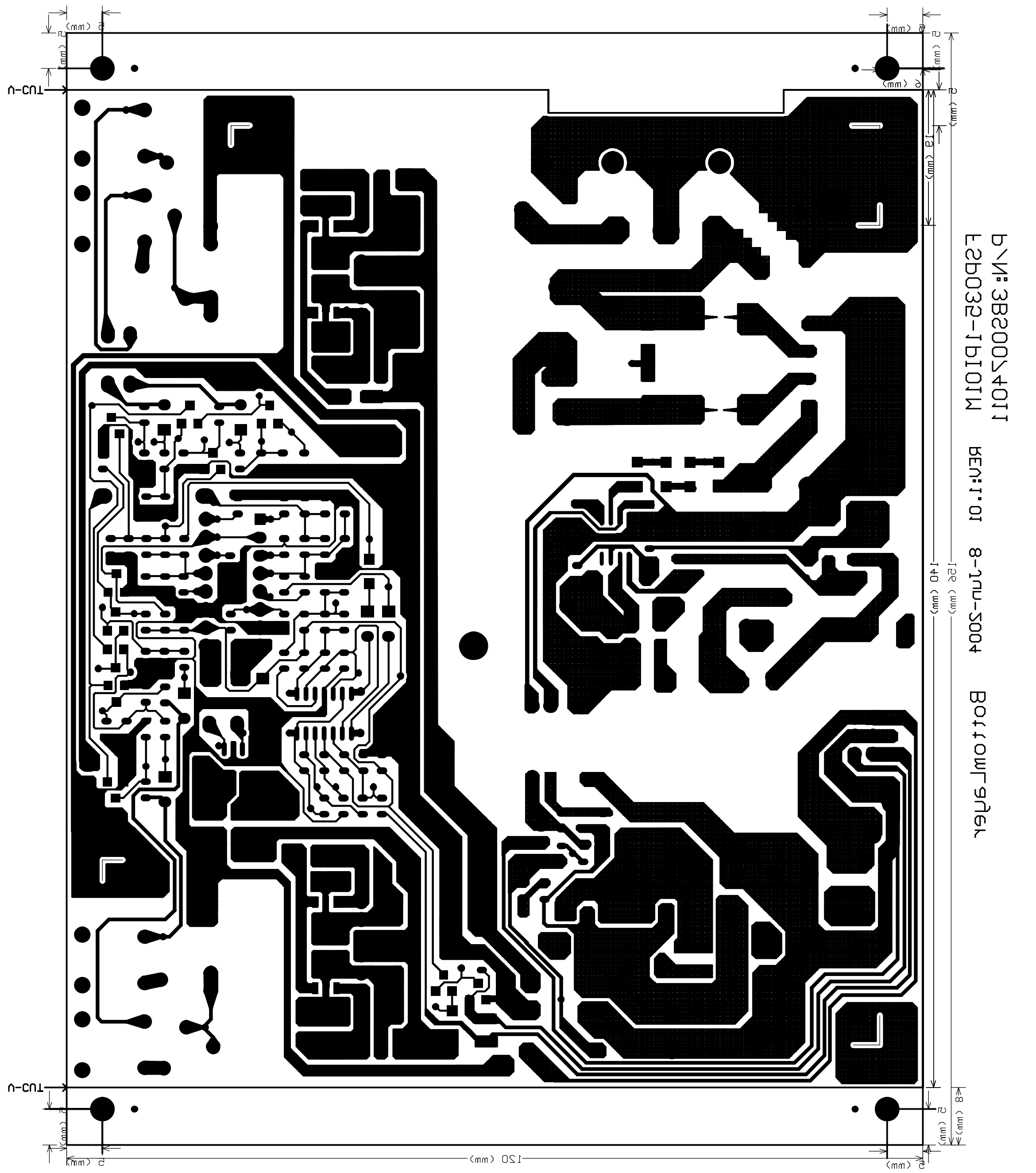
FSP035-1PI01M REV:1.00 3-May-2004 DrillDrawing

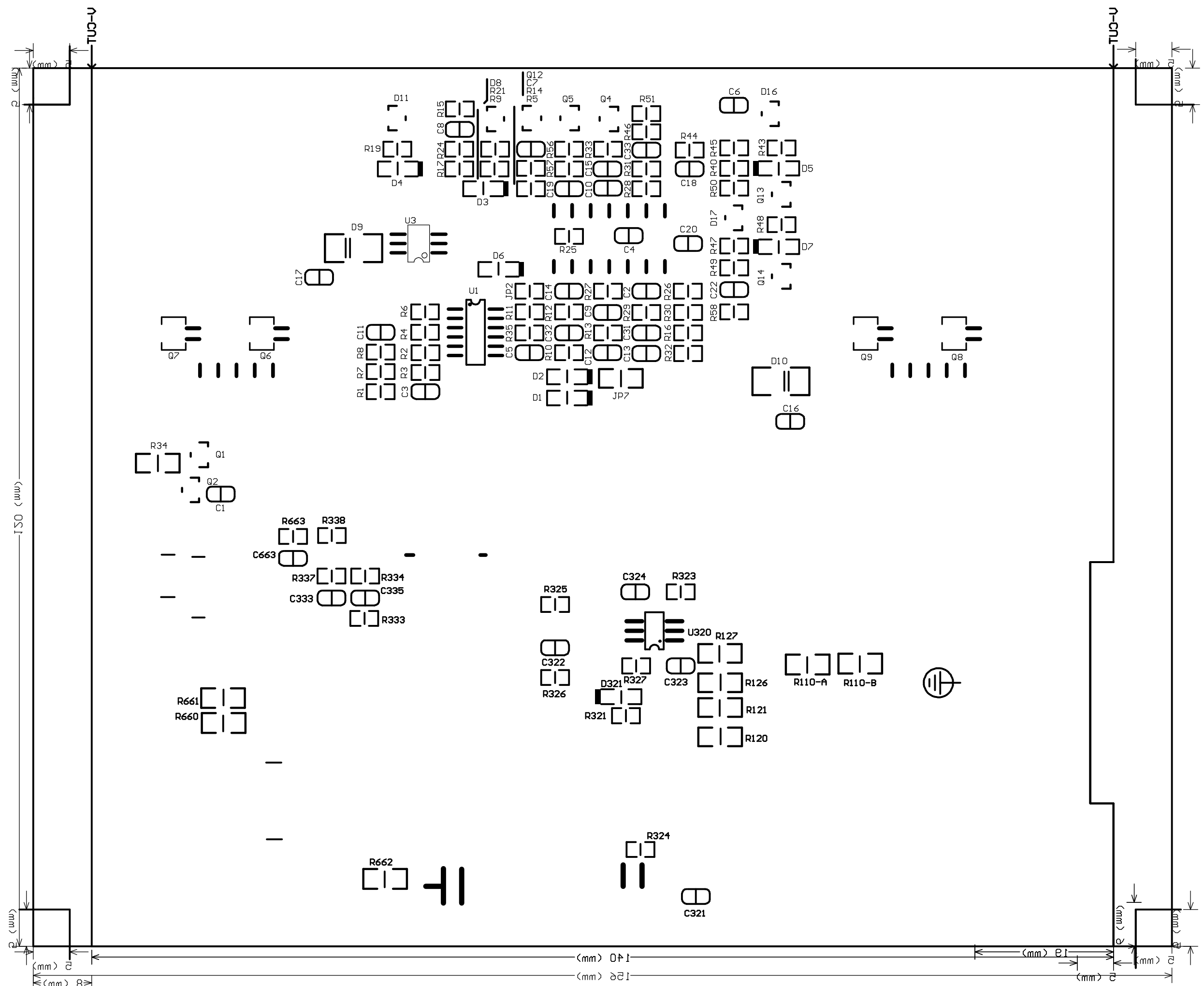
P/N:3BS0074010



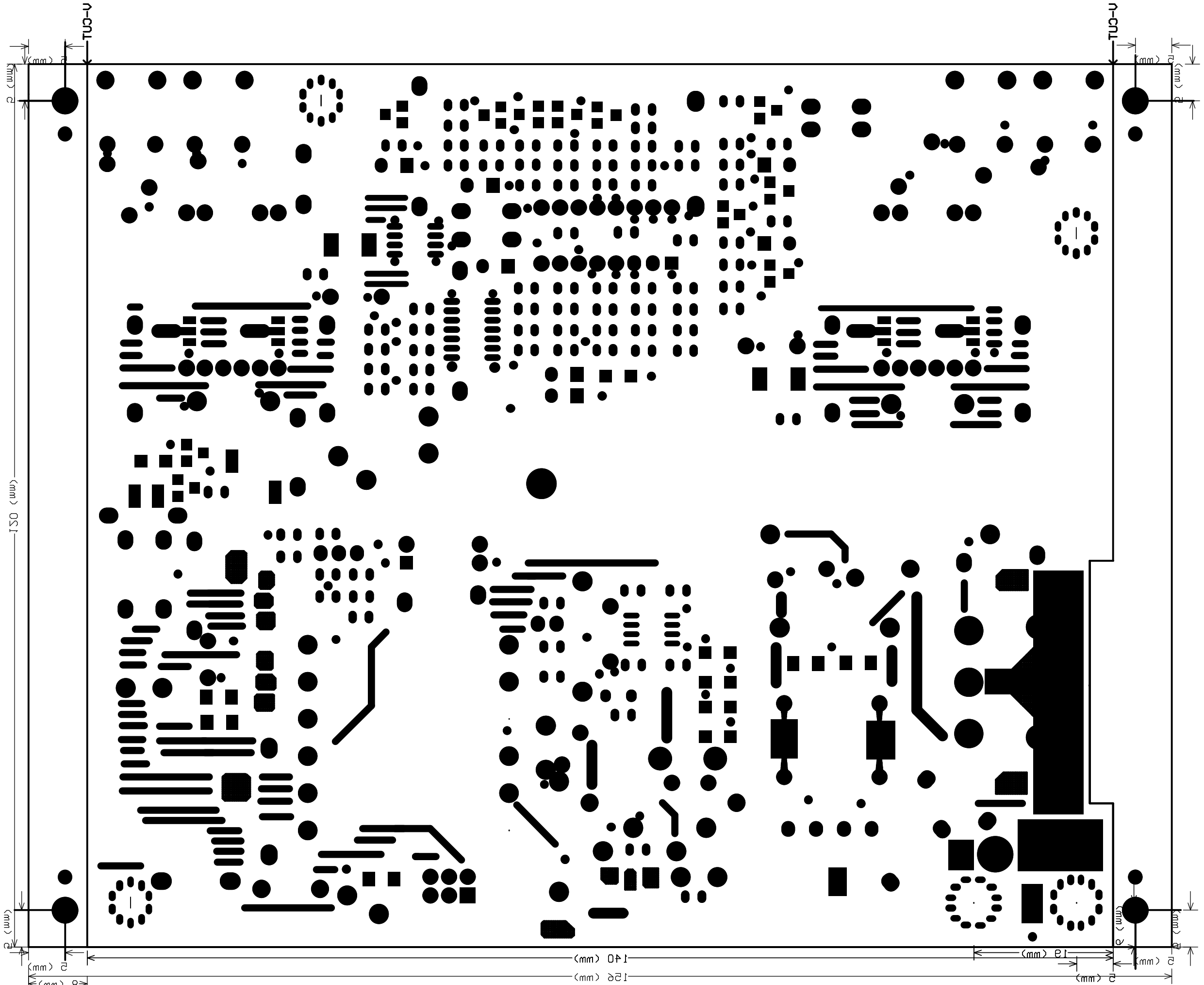
FSP035-1PI01M REV:1.00 3-May-2004 DrillGuide

P/N:3BS0074010


P/N:3BS0020401
FSP035-1PI01M
REV:1.01
8-Jun-2004
Bottom_Layer



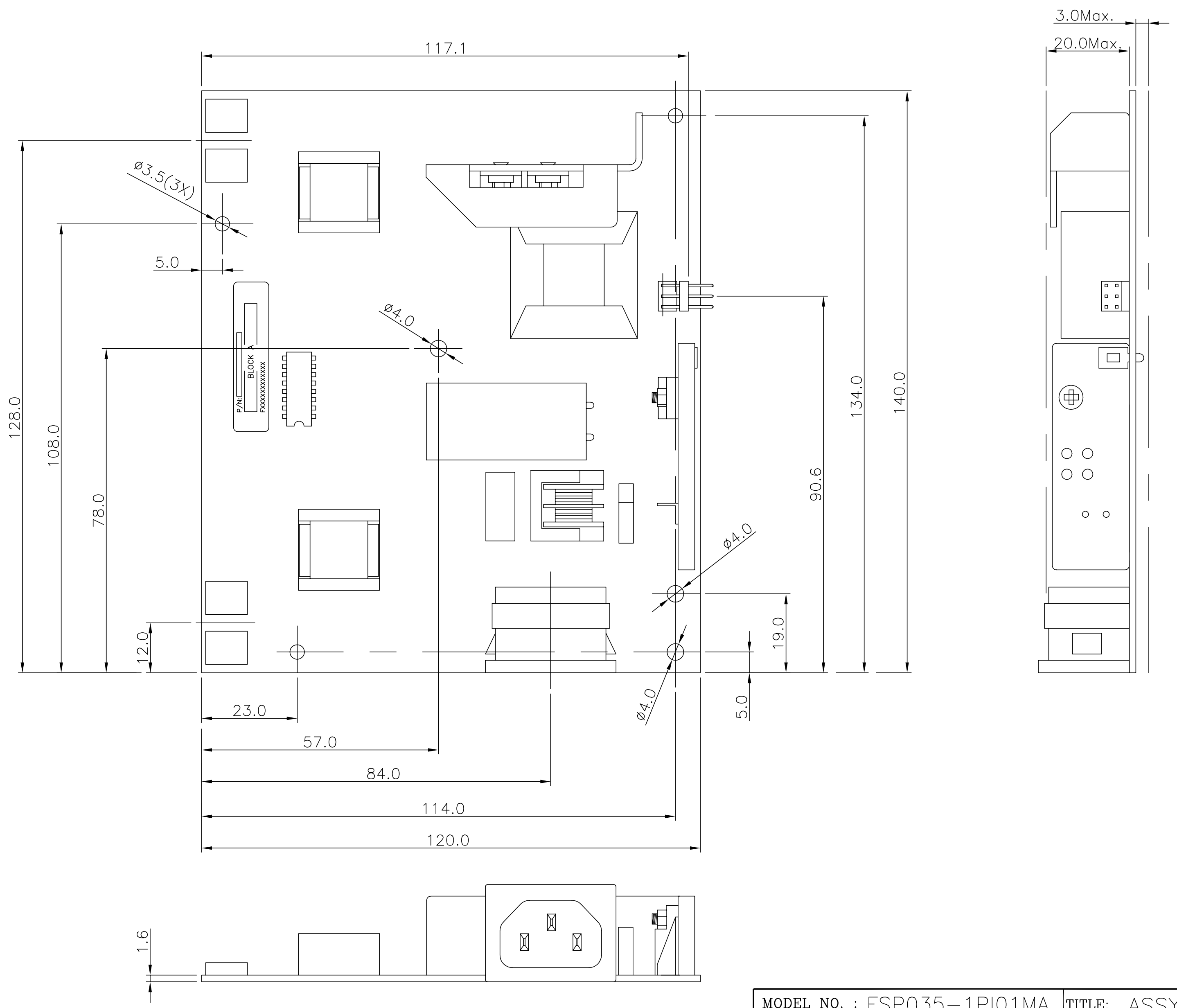
FSP035-1PI01M REV:1.00 3-May-2004 Bottom Overlay
P/N:3BS0074010



FSP035-1PI01M REV:1.00 3-May-2004 Bottom Solder Mask

P/N:3BS0074010

SPI Electronic Co., Ltd.

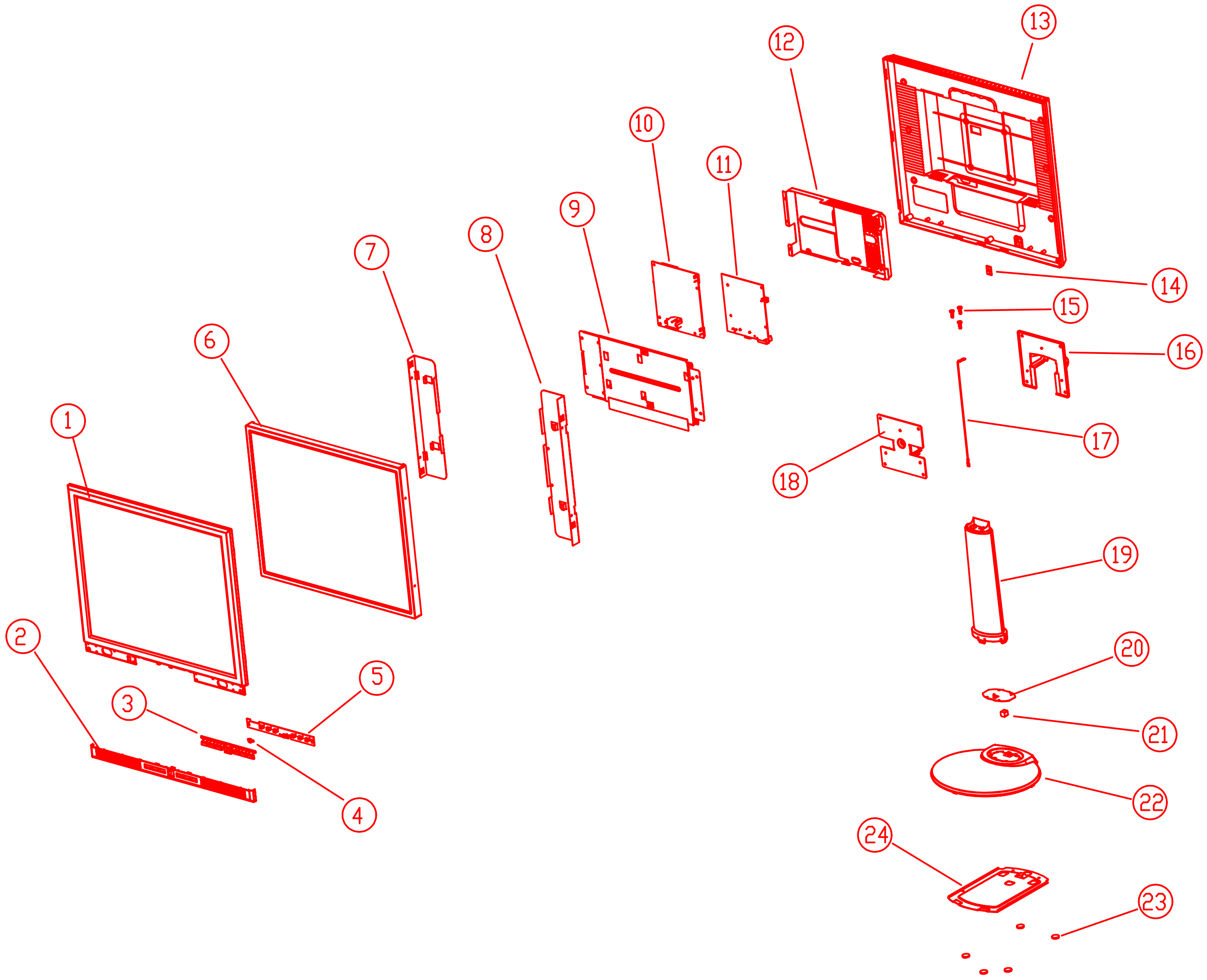


備註： 產地標籤依業務指示加貼。

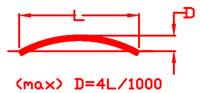
SCALE:
UNIT: mm

P/N.: 90C0350304

MODEL NO. : FSP035-1PI01MA		TITLE: ASSY	SHEET: 1 OF 1	REV: 01
R&D(6)	P E	DRAWN	DATE	
			MAY.03.2004	
INTERIOR COUNTERSIGN:				



Item	Part No.	Description	Q'ty
1	EAL9E005018	Bezel lcd	1
2	EBL9E007011	Button bezel Lcd	1
3	EBL70014014	Button	1
4	EBL70015011	LENS	1
5	22L9EBB0009	BOTTON B/D ASS'Y	1
6	AA190E03000	Panel Lcd	1
7	FBL9E002010	Lcd bracket ,L	1
8	FBL9E001013	Lcd bracket ,R	1
9	34L9EBRMA04	M/B Bkt ,ASS'Y	1
10	AS02B012D67	Power B/D	1
11	21L9EMB0002	M/B Ass'y	1
12	35L9EMSMA05	M/B Shieling Ass'y	1
13	EAL9E006014	Back Cover	1
14	FBL70008014	Lock Metal	1
15	MF40160PJ22	Screw F4.0 *16.0	3
16	EBL9E006015	Hinge Cover	1
17	DD0L9ETH102	Cable Ass'y	1
18	FAL9E004011	Hinge Ass'y	1
19	EAL9E007011	Stand Neck	1
20	FBL9E003016	Stand Neck plate	1
21	GBLM7003017	Gasket	1
22	EAL9E008017	Stand Base	1
23	GAL5M002011	Rubber Foot	4
24	FAL9E003015	Stand Plate	1



REVISIONS

LTR	DESCRIPTION	DATE	APP

ITEM	PART NO.	DESCRIPTION

MODEL L9EA

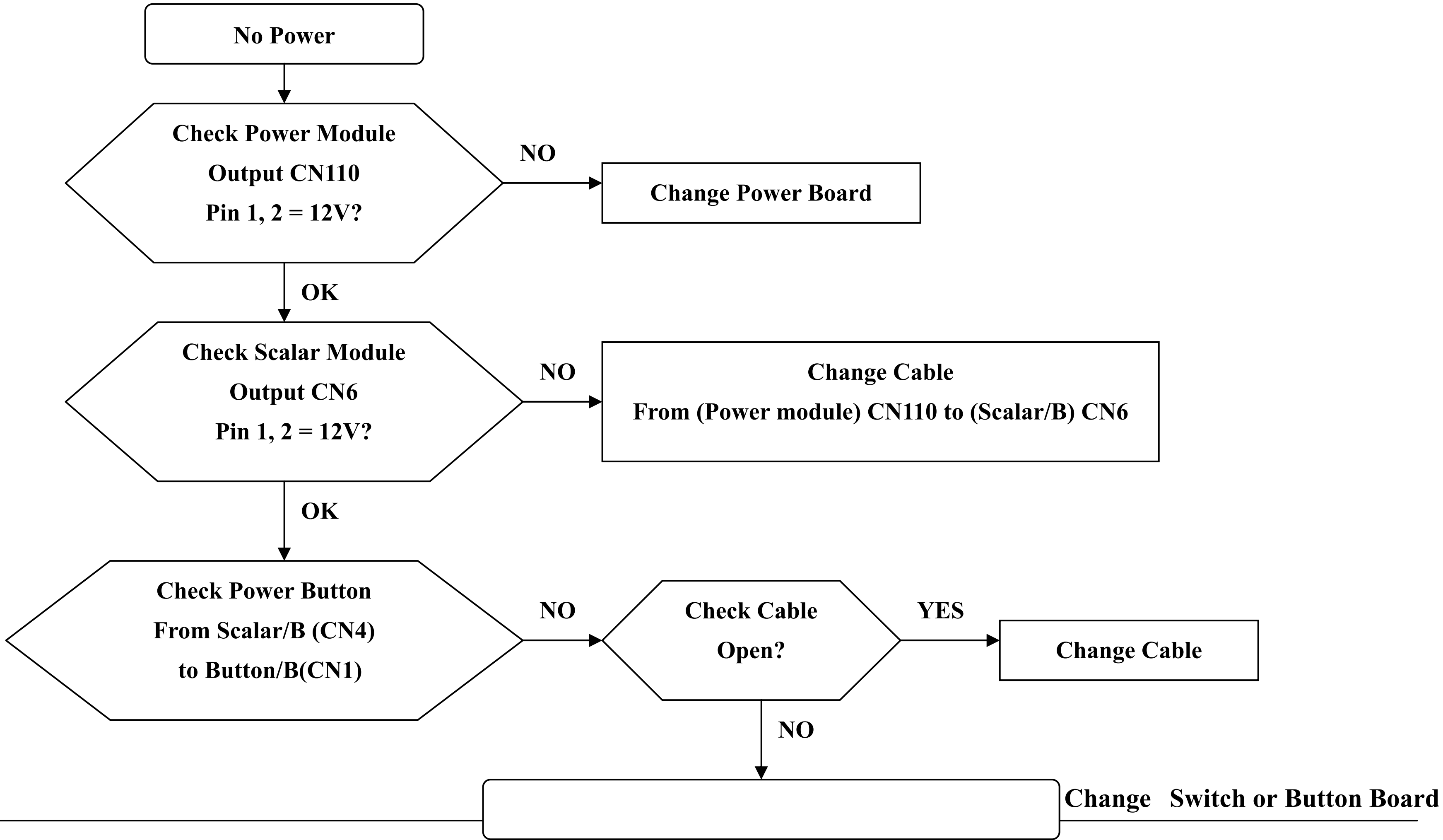
UNIT : MM

RANGE	TOLERANCE
0 - 10	± 0.10
10 - 50	± 0.15
50 - 100	± 0.20
100 -	± 0.25

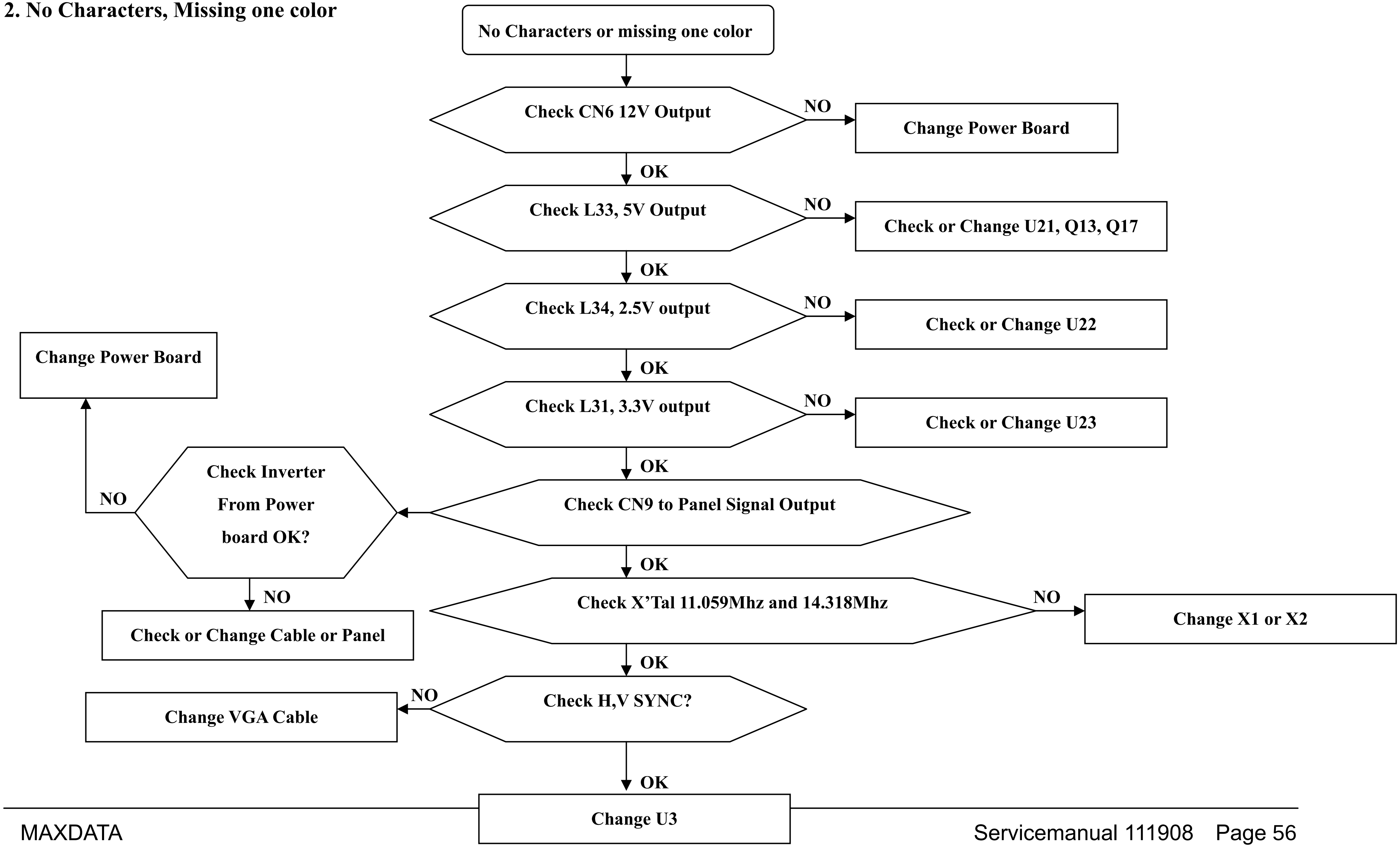
NAME	LCD MONITE , L9EA		APPROVED
TOL. ±	1 PLC / 2 PLC / ANGLE	UNIT mm	DESIGNED JONES
MATERIAL	ABS	SCALE 1:1	DRAWN JONES
FINISH		DATE 9/12'02	REV 3A
THE 3RD PROJECTION		DWG. NO. 1L9EZZZ	2/2

12. TROUBLE SHOOTING HINTS

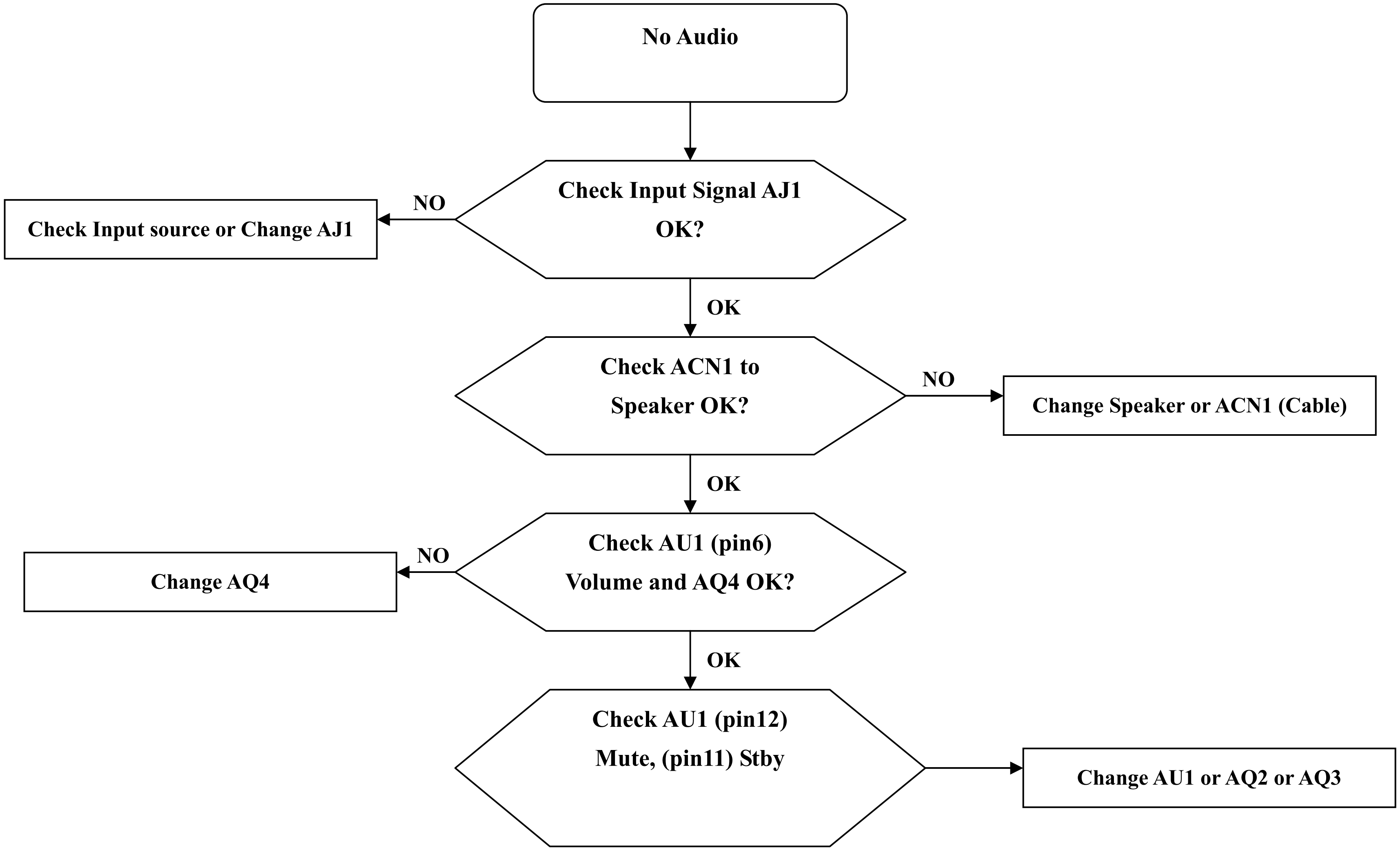
1. No power



2. No Characters, Missing one color



3. No Audio


No Audio
Check Input Signal AJ1
OK?
NO
Check Input source or Change AJ1
OK
Check ACN1 to
Speaker OK?
NO
Change Speaker or ACN1 (Cable)
OK
Check AU1 (pin6)
Volume and AQ4 OK?
NO
Change AQ4
OK
Check AU1 (pin12)
Mute, (pin11) Stby
Change AU1 or AQ2 or AQ3

13. BOM LIST

Level	Part Number	Part Description	Qty	Location
0	1L9EZZZMA31	L9E LCD MONITOR(AU PMVA)		
1	29L7VMB00Q9	L7VD M/B ASSY(FOR L9E,AU)	1	
2	3BL7VSS0084	L7VD M/B S/S ASSY(FOR L9E,AU)	1	
3	DAL7VDMB2A8	PCB(M/B) L7VD MB(2L,125*108,REVA)	1	
4	L7V206-1	DAL7VDMB2A8 L7VD MB GERBER FILE	0	
3	BA039040Z01	TRANSISTOR,SMD MMBT3904(40V,200MA)	3	AQ4,Q5,Q12
3	AJU56AKCC07	IC(128P) TSU56AK(135MHZ,PQFP)	1	U3
3	AKE3I8B0602	IC EEPROM(8P)M24C08-WMN6T(1K*8,400K,SO8)	1	U4
3	AJ00312VP18	IC(44P) MTV312MV64AJ(12MHZ,PLCC)	1	U5
3	AL001117078	IC(3P) AIC1117CY(SOT-223)	2	U22,U23
3	AL001563001	IC(8P) AIC1563CS(SOP8)	1	U21
3	BA039060Z01	TRANSISTOR,SMD MMBT3906(40V,200MA)	6	Q1,Q2,Q3,Q10,Q11,Q17
3	BAM23010Z05	TRANSISTOR MOSFET SI2301DS(-12V,-2.3A)	2	Q6,Q7
3	BAM9410YZ02	TRANSISTOR MOSFET SI9410DY(30V,7A)	1	Q13
3	BA001440Z87	TRANSISTOR SMD PDTC144EU (50V,30MA)	4	AQ2,AQ3,Q8,Q9
3	BA144EUAZ04	TRANSISTOR SMD DTC144EUA(50V,30MA)	4	AQ2,AQ3,Q8,Q9
3	BCRB081LZ02	DIODE SMD RB081L-20(20V,5.0A,VF:0.45V)	1	D26
3	BC1SS355Z05	DIODE SMD 1SS355(80V,100MA)	2	D1,D9
3	BDGZ5226Z03	DIODE ZENER SMD MMGZ5226B(3.3V)	1	D30
3	CH51004MA32	CAPACITOR CHIP 1UF 25V(+-20%,Y5V,0805)	5	AC1,AC4,AC6,C57,C65
3	CH02206J909	CAPACITOR CHIP 22P 50V(+-5%,NPO,0603)	6	C41,C42,C50,C51,C52,C53
3	CH22206K917	CAP CHIP 2200P 50V(+-10%,X7R,0603)	6	C60,C66,C72,C73,C76,C77
3	CH34703K916	CAP CHIP 0.047UF 16V(+-10%,X7R,0603)	6	C1,C3,C4,C6,C8,C10
3	CH31006K919	CAP CHIP 0.01U 50V(+-10%,X7R,0603)	1	C7
3	CH41004Z931	CAP CHIP 0.1U,25V(+80-20%,Y5V,0603)	42	AC2,C14,C18,C19,C20,C21,C22,C23,C24,C26,C27,C29,C31,C32,C34,C35,C37,C38,C39,C40,C43,C44,C45,C46,C47,C48,C55,C56,C59,C61,C63,C64,C67,C74,C78,C80,C81,C82,C92,C93,C94,C95
3	CH03306J905	CAPACITOR CHIP 33P 50V(+-5%,NPO,0603)	2	C11,C13
3	CH51001K991	CAP CHIP 1U 6.3V(+-10%,X5R,0603)	1	C101
3	CH11206J908	CAPACITOR CHIP 120P 50V(+-5%,NPO,0603)	1	C102
3	CS03303J909	RES CHIP 33 1/10W +-5%(0603)	1	R98
3	CS00004JA07	RESISTOR CHIP 0 1/8W +-5%(0805)	6	L13,L26,L28,L29,L30,R104
3	CS00003J900	RESISTOR CHIP 0 1/10W+-5%(0603)	9	L35,R115,R116,R117,R118,R119,R120,R121,R122
3	CS13303F909	RESISTOR CHIP 330 1/10W +-1%(0603)	1	R86
3	CS13903F901	RESISTOR CHIP 390 1/10W+-1%(0603)	2	R7,R27
3	CS21003J906	RES CHIP 1K 1/10W +-5%(0603)	12	AR1,L14,L15,L37,L38,L39,L40,L41,R68,R70,R78,R93
3	CS22003J909	RES CHIP 2K 1/10W +-5%(0603)	13	AR15,R12,R15,R20,R21,R35,R36,R53,R54,R62,R92,R112,R113
3	CS07503F905	RESISTOR CHIP 75 1/10W +-1%(1608)	9	R1,R2,R3,R4,R5,R6,R8,R9,R10
3	CS23003F900	RES CHIP 3K 1/10W +-1%(0603)	1	R66
3	CS24703F908	RESISTOR CHIP 4.7K 1/10W+-1%(0603)	5	R71,R90,R91,R96,R97
3	CS31003J908	RES CHIP 10K 1/10W +-5%(0603)	21	8
3	CS38203J904	RES CHIP 82K 1/10W +-5%(0603)	4	R41,R72,R74,R77
3	CX0E601R009	EMI FILTER CHIP HZ0805E601R(600,500MA)	5	L8,L9,L10,L11,L12
3	CS00006J205	RESISTOR CHIP 0 1/4W+-5%(3216)	2	FUSE1,R63
3	CS02203J902	RES CHIP 22 1/10W +-5%(0603)	9	R30,R31,R33,R34,R48,R49,R50,R51,R59
3	CS-3303J901	RESISTOR CHIP 3.3 1/10W +-5%(1608)	1	R114
3	CS04703J906	RES CHIP 47 1/10W +-5%(0603)	2	R17,R111
3	CS12003F905	RESISTOR CHIP 200 1/10W+-1%(0603)	3	L16,L17,R85
3	CS26803J909	RESISTOR CHIP 6.8K 1/10W +-5%(1608)	1	R94
3	CS33303J904	RESISTOR CHIP 33K 1/10W +-5%(0603)	7	R39,R40,R99,R100,R101,R105,R106
3	CS42403F905	RESISTOR CHIP 240K 1/10W,+-1%(0603)	1	R79
3	CX000300104	EMI FILTER CHIP FCM1608C-300T06 30,600MA	3	L2,L3,L6
3	CX201209805	EMI FILTER CHIP FBM-11-201209-121A40	11	AL1,AL3,AL4,AL5,AL6,AL7,AR9,AR10,L31,L33,L34
3	CS43303J906	RES CHIP 330K 1/10W +-5%(0603)	1	R16
3	CS21003F904	RESISTOR CHIP 1K,1/10W,+-1%(0603)	3	R11,R14,R67
3	CS11003J904	RESISTOR CHIP 100 1/10W +-5%(0603)	15	AR5,AR6,L7,R13,R18,R19,R22,R23,R28,R29,R46,R47,R60,R84,R89
3	CH12206J901	CAPACITOR CHIP 220P 50V(+-5%,NPO,0603)	2	AC7,AC8
3	CS32003J901	RES CHIP 20K 1/10W +-5%(0603)	2	AR7,AR8
3	CH41004MA14	CAPACITOR CHIP 0.1U 25V(+-20%,X7R,0805)	1	AC10
3	CS23903J904	RES CHIP 3.9K 1/10W +-5%(0603)	1	AR4
3	AKE1A800Y02	IC EEPROM(8P,5V) 24LC02B(2K*1,SOP)	1	U2
3	BCBAT54CZ02	DIODE SMD BAT54C(30V,200MA,SCHOTTKY)	1	D11
3	CS12203J904	RES CHIP 220 1/10W +-5%(0603)	1	R83
2	CC62204MD23	CAP ELEC 22U 25V(+-20%,105C,5*11,2000HR)	7	C17,C25,C28,C30,C33,C36,C49
2	CC73303MD51	CAP ELEC 330U 16V(+-20%,105C,8*11,2000HR	7	AC3,AC5,AC9,AC11,C58,C75,C79
2	CC71004MD68	CAP ELEC 100U 25V +-20%,105C,6*11,LESR	4	C68,C69,C70,C71
2	CC81001MD71	CAP ELEC DIP 1000U6.3V +-20% 105C 8*11.5	1	C62
2	BG614318D55	XTAL DIP 14.318MHZ(+-30PPM,07010-X-136-2	1	X1
2	BG611059319	CRYSTAL DIP 11.0592MHZ(+-30PPM,49/US)	1	X2
2	DFDS15FR050	CONN D-SUB 15P 3R FR,P1.15,H12.55,NO SRW	1	CN1
2	DC04725K002	CHOKE COIL 47UH(2.5A,+-10%,T07473)	1	L21
2	DFHD10MR316	CONN DIP HEADER 10P 1R MR(P2.0,H4.1)	1	CN4
2	DFHD06MR247	CONN DIP HEADER 6P 2R MR(P2.5,H6.0)	1	CN6
2	DFPJ05FR145	CONN DIP PHONE JACK 5P FR(H10)248C	1	AJ1
2	DFHD04MR124	CONN DIP HEADER 4P 1R MR(P2.0,H4.1)	1	ACN1
2	DFHD30MR259	CONN DIP HEADER 30P 2R MR(P2.0,H4.0)	1	CN9
2	AL007496D02	IC(20P) TDA7496L(DIP)	1	AU1
2	DFDI30FR049	CONN DVI-I DIP30P 3R FR(P1.905,H10.04)	1	CN3
1	AS02B012D91	ADD/INV,FSP035-1PI01MA,90~264V REV1A	1	
1	22L9EBB0009	L9E BUTTON/B ASSY	1	
2	DA0L9ETB1A0	PCB(BUTTON) L9E TB(1L,175*19,REVA)	1	
3	L9E206-01	DA0L9ETB1A0 L9E BUTTON/B GERBER FILE	0	
2	BEYG0013DA3	LED(DIP) YELLOW/GREEN(L-3WYGW)	1	LED1
2	DFHD10MR316	CONN DIP HEADER 10P 1R MR(P2.0,H4.1)	1	CN1
2	DHP0002B108	SWITCH PUSH BUTTON(PT-002-B1,50MA,12V)	7	SW1,SW2,SW3,SW4,SW5,SW6,SW7

2	DHP00TSAB02	SWITCH PUSH BUTTON(TSAB-2,50MA,12V)	7	SW1,SW2,SW3,SW4,SW5,SW6,SW7
1	23L9ELAMA27	L9E LCD MODULE ASS(AU)	1	
2	32L9EFBMA11	L9E FRONT BEZEL ASSY(AU)	1	
3	EAL9E005018	LCD BEZEL L9EA(EAL9E005,REV3A)	1	
4	EAL9E005	LCD BEZEL L9EA	0	
3	EBL9E007011	BUTTON BEZEL L9EA(EBL9E007,REV3A)	1	
4	EBL9E007	BUTTON BEZEL L9EA	0	
3	EBL70015011	LENS L70H(EBL70015,REV 3A)	1	
4	EBL70015	LENS	0	
3	EBL70014014	BUTTON L70H(EBL70014,REV 3A)	1	
4	EBL70014	BUTTON	0	
2	33L9EBCMA10	L9E BACK COVER ASSY(AU)	1	
3	33L9EBCM	L9E BACK COVER ASSY(AU)	0	
3	EAL9E006014	LCD COVER L9EA(EAL9E006,REV3A)	1	
4	EAL9E006	LCD COVER L9EA	0	
3	FBL70008014	LOCK METAL L70B(FBL70008,REV3A)	1	
4	FBL70008	LOCK METAL L70B	0	
4	RH102010801	STEEL SECC 23*9MM*T0.8	1,4	
2	34L9EBRMA04	L9E M/B BKT ASSY	1	
3	34L9EBR0	L9E M/B BKT ASSY	0	
3	FAL9E001012	M/B BKT L9E(FAL9E001,REV3A)	1	
4	FAL9E001	M/B BKT	0	
3	FCL9E001014	M/B BKT MYLAR L9E(FCL9E001,REV3A)	1	
4	FCL9E001	M/B BKT MYLAR	0	
3	GAL5T001016	RUBBER-HOLDER L5TL-E(GAL5T001,REV3B)	1	
4	GAL5T001	RUBBER-HOLDER L5TL-E	0	
2	35L9EMSMA05	L9E M/B SHIELD ASSY	1	
3	35L9EMS0	L9E M/B SHIELD ASSY	0	
3	FAL9E002019	M/B SHIELD L9E(FAL9E002,REV3A)	1	
4	FAL9E002	M/B SHIELD	0	
3	FCL9E002011	M/B SHIELD MYLAR L9E(FCL9E002,REV3A)	1	
4	FCL9E002	M/B SHIELD MYLAR	0	
3	GBLM7003017	GASKET-3 LM7S(GBLM7003,REV3A)	1	
4	GBLM7003	GASKET-3 LM7S	0	
2	AAM190EN005	LCD(TFT) 19" M190EN02 REV:V2	1	
2	DD0L9ELC005	CABLE ASSY L9E MB-LCD(30P,REV1A)	1	
2	DD0L9ETH005	CABLE ASSY L9E MB-BUTTON(10P,REV1A)	1	
2	DN0QT390073	SPEAKER ASSY L9E FG-QT390H 2W*2	1	
2	EBL7V030013	PCB SPACER L7VD(EBL7V030,REV3A)	1	
3	EBL7V030	PCB SPACER L7VD	0	
2	FBL9E001013	LCD BRACKET R L9E(FBL9E001,REV3A)	1	
3	FBL9E001	LCD BRACKET R	0	
2	FBL9E002010	LCD BRACKET L L9E(FBL9E002,REV3A)	1	
3	FBL9E002	LCD BRACKET L	0	
2	FBL9E006015	AL FOIL L9E(FBL9E006,REV3A)	1	
3	FBL9E006	AL FOIL L9E	0	
2	FCL70007019	MYLAR SCALAR/LCD L70L-A(FCL70007,R3A)	1	
3	FCL70007	MYLAR SCALAR/LCD	0	
2	GBLM7003017	GASKET-3 LM7S(GBLM7003,REV3A)	1	
3	GBLM7003	GASKET-3 LM7S	0	
2	MBLI1004018	IO NUT LI1(MBLI1004,REV3A)	4	
3	MBLI1004	IO NUT LI1	0	
2	MS35050ILV0	SCEREW M3.5*5-I(NI),W	1	
3	M35050I1	SCREW M3.5*5-I(NI)W	0	
2	MM30030IBJ4	SCREW M3*3-I-NI	4	
2	MM30050BBJ9	SCREW M3*5-B-NI-+	19	
2	MM30060IBJ8	SCREW M3.0*6.0-I(NI)	4	
2	MF30060PBJ5	SCREW F3.0*6.0-P(NI)	3	
2	MF30080BBJ5	SCREW F3.0*8L,B,NI	3	
2	GAL9E002019	RUBBER SPK L9EA(GAL9E002,REV3A)	2	
3	GAL9E002	RUBBER SPK L9EA	0	
1	24L9ESAMA17	L9E STAND ASSY(AU)	1	
2	36L9ESAMA19	L9E STAND NECK ASSY(AU)	1	
3	36L9ESAM	L9E STAND NECK ASSY(AU)	0	
3	EAL9E007011	STAND NECK L9EA(EAL9E007,REV3A)	1	
4	EAL9E007	STAND NECK L9EA	0	
3	EBL9E006015	HINGE COVER L9EA(EBL9E006,REV3A)	1	
4	EBL9E006	HINGE COVER L9EA	0	
3	FAL9E004011	HINGE ASSY L9E(FAL9E004,REV3A)	1	
4	FAL9E004	HINGE ASSY	0	
3	FBL9E003016	STAND NECK PLATE L9E(FBL9E003,REV3C)	1	
4	FBL9E003	STAND NECK PLATE	0	
3	MF40160PJ22	SCREW F4.0*16-P(BLACK NI)	3	
3	DD0L9ETH102	CABLE ASSY L9E POWER-CHASSIS(1P,REV1A)	1	
3	FCL9E003017	HINGE MYLAR FOR L9EA(FCL9E003,REV3A)	1	
4	FCL9E003	HINGE MYLAR FOR L9EA	0	
2	MM40100BCI2	SCREW M4*10.0-B(NI,NYLOK)	4	
1	26L9EPKMA15	L9E PACKING ASSY(AU PMVA)	1	
2	37L9ESBMA15	L9E STAND BASE ASSY(AU)	1	
3	37L9ESBM	L9E STAND BASE ASSY(AU)	0	
3	EAL9E008017	STAND BASE L9EA(EAL9E008,REV3A)	1	
4	EAL9E008	STAND BASE L9EA	0	
3	FAL9E003015	STAND PLATE L9E(FAL9E003,REV3A)	1	
4	FAL9E003	STAND PLATE	0	
3	GAL9E001012	RUBBER FOOT L9E(GAL9E001,REV3A)	7	
4	GAL9E001	RUBBER FOOT L9E	0	
3	MF30080IBJ0	SCREW F3.0*8-I(NI)	4	

3	GBH0E002016	GASKET H0E(GBH0E002,REV3A)	1	
4	GBH0E002	GASKET H0E	0	
2	DD0L0TPC104	CABLE ASSY L0T MB-VGA(15P,REV2A)(WHITE)	1	
2	DDL70LPC100	CABLE ASSY L70L1.8M PC-MONITOR (REV1A)	1	
2	DM333180014	POWER CORD(EU) 3P 1.8M Y345B30000818001	1	
2	HAL0T002019	PE BAG L0T(HAL0T002,REV3A)	1	
3	HAL0T002	PE BAG	0	
2	HBL9E001013	END CAP-L L9E(HBL9E001,REV3A)	1	
3	HBL9E001	END CAP-L	0	
2	HBL9E002010	END CAP-R L9E(HBL9E002,REV3A)	1	
3	HBL9E002	END CAP-R	0	
2	HCL9E002011	RATING LABEL L9EA(HCL9E002,REV3A)	1	
3	HCL9E002	RATING LABEL	0	
2	HCL70002017	BARCODE LABELL70E(HCL70002,REV3A)	4	
3	HCL70002	BARCODE LABELL70E	0	
2	HCLM5013016	TRAVEL CARD LM5A(HCLM5013,REV3A)	1	
3	HCLM5013	TRAVEL CARD	0	
2	HDL9E002011	MANUAL L9EA(HDL9E002,REV3A)	1	
2	HFL9E003010	CARTON L9EA(HFL9E003,REV3A)	1	
3	HFL9E003	CARTON	0	
2	JXL9E001014	LCD FILM L9E(JXL9E001,REV3A)	1	
3	JXL9E001	LCD FILM	0	
2	HCL70021011	HI-POT LABEL L70L(HCL70021,REV3A)	1	
3	HCL70021	HI-POT LABEL	0	
2	HFL9B002012	SPACE PLATE L9B(HFL9B002,REV3A)	0,05	
3	HFL9B002	SPACE PALTE	0	

Power / Inverter BD

Item	Description	Unit	Qty	Location	Maker
1001	DIODE,BRIDGE,2A,600V,GLASS,KBP205G,T.S	PCS	1	BD110:,	T.S
1001-A	DIODE,BRIDGE,2A,600V,GLASS,KBP206G,LITEON	PCS			LITEON
1001-B	DIODE,BRIDGE,2A,600V,GLASS,2KBP06M,PAN JIT	PCS			PAN JIT
1002	DIODE,FAST,1A,600V,DO-41,1N4937,T.S	PCS	1	D320:,	T.S
1002-A	DIODE,FAST,1A,600V,DO-41,1N4937,LITEON	PCS			LITEON
1002-B	DIODE,FAST,1A,600V,DO-204AL,1N4937,GS	PCS			GS
1003	DIODE,SCHOTTKY,10A,100V,TO-220AB,,,MBR10100CT,LITEON	PCS	2	D660:,D661:,	LITEON
1003-A	DIODE,SCHOTTKY,10A,100V,TO-220AB,,,STPS10H100CT,STM	PCS			STM
1003-B	DIODE,SCHOTTKY,10A,100V,TO-220AB,,,GMR10H100C,GAMMA	PCS			GAMMA
1004	DIODE,ULTRAFAST,1A,1000V,DO-15,,,BYV26EGP,GS	PCS	1	D110:,	GS
1004-A	DIODE,ULTRAFAST,1A,1000V,SOD-57,,,BYV26E,PHILIPS	PCS			PHILIPS
1004-B	DIODE,ULTRAFAST,1A,1000V,DO-15,1NU41,TOSHIBA	PCS			TOSHIBA
1005	IC,PWM CONTROLLER,DIP-16P,,,BI3101A-DP,BITEK	PCS	1	U2:,	BITEK
1006	IC,VOLT REGULATOR,,,,TO-92,+-0.8%,AZ431BZ-A,AAC	PCS	1	IC330:,	AAC
1006-A	IC,VOLT REGULATOR,,,,TO-92,1%,KIA431A,KEC	PCS			KEC
1006-B	IC,VOLT REGULATOR,TO-92,1%,CM431,CHAMPION	PCS			CHAMPION
1006-C	IC,VOLT REGULATOR,,,,TO-92,+-1%,AP431,ATC	PCS			ATC
1007	IC,OPTO COUPLER,,CTR 130-260,DIP-4P(10.16mm),,LTV817BM,LITEON	PCS	1	PC330:,	LITEON
1007-A	IC,OPTO COUPLER,,CTR 130-260,DIP-4P(10.16mm),,PS2561L1-1-VW,NEC	PCS			NEC
1008	TR,N MOSFET,2.5A,650V,TO-220F,,,CEF04N6,CET	PCS	1	Q320:,	CET
1009	DIODE,ZENER,23.6-24.7V,500mW,D0-35,,TZX24B,TEMIC	PCS	1	ZD302:,	TEMIC
1009-A	DIODE,ZENER,23.6-24.7V,0.5W,DO-35,,HZ24-2TA,HITACHI	PCS			HITACHI
1009-B	DIODE,ZENER,23.6-24.7V,500mW,D0-35,,TZX24B,VISHAY	PCS			VISHAY
1010	DIODE,ZENER,SMD,7.7-8.7V,0.5W,SOD-80,,BZV55C8V2,PHILIPS	PCS	1	D6:,	PHILIPS
1010-A	DIODE,ZENER,SMD,7.7-8.7V,0.5W,SOD-80,,TZMC8V2,VISHAY	PCS			VISHAY
1011	DIODE,FAST,0.15A,75V,SOD-23,SMD,,BAV99,PAN JIT	PCS	4	D11:,D16:,D17:,D8:,	PAN JIT
1011-A	DIODE,FAST,0.215A,75V,BAV99,SOT-23,SMD,,PHILIPS	PCS			PHILIPS
1011-B	DIODE,FAST,0.215A,70V,SOT-23,SMD,BAV99LT1,MOTOROLA	PCS			MOTOROLA
1011-C	DIODE,FAST,0.25A,70V,SOT-23,SMD,BAV99,TEMIC	PCS			TEMIC
1012	DIODE,SWITCH,0.2A,100V,LL-34,SMD,RLS4148N,ROHM	PCS	6	D1:,D2:,D3:,D4:,D5:,D7:,	ROHM
1012-A	DIODE,SWITCH,0.2A,100V,SOD-80,SMD,LL4148,TEMIC	PCS			TEMIC
1012-B	DIODE,SWITCH,0.2A,100V,SOD-80,SMD,,LL4148,PAN JIT	PCS			PAN JIT
1013	DIODE,SCHOTTKY,2A,40V,DO-214AC,SMD,SR24,PAN JIT	PCS	2	D10:,D9:,	PAN JIT
1013-A	DIODE,SCHOTTKY,2A,40V,SMD,RB060L-40/TE-25,ROHM	PCS			ROHM
1013-B	DIODE,SCHOTTKY,2A,40V,SMA/DO-214AC,SS24,T.S	PCS			T.S
1013-C	DIODE,SCHOTTKY,2A,40V,B240 SMB,LITEON	PCS			LITEON
1013-D	DIODE,SCHOTTKY,2A,40V,DO-214AA,SMB240,FCI	PCS			FCI
1014	IC,OP AMPLIFIER,SMD,SO-14,LM324,STM	PCS	1	U1:,	STM
1015	IC,PWM CONTROLLER,SMD,SO-8,,SG6841S,SYSTEM GENERAL	PCS	1	U320:,	SYSTEM GEN
1016	TR,PNP,0.1A,50V,SOT-23,,SMD,MMUN2132LT1,MOTOROLA	PCS	1	Q1:,	MOTOROLA
1016-A	TR,PNP,0.1A,50V,UMT3(SC-70),,SMD,DTA143EUA,ROHM	PCS			ROHM
1016-B	TR,PNP,0.1A,50V,SOT-23,,SMD,KSR2104,FAIRCHILD	PCS			FAIRCHILD
1017	TR,NPN,2A,50V,MPT3(SOT-89),,SMD,2SC4672,ROHM	PCS	4	Q6:,Q7:,Q8:,Q9:,	ROHM
1018	TR,NPN,0.1A,50V,SOT-23,,,MMUN2232T1,MOTOROLA	PCS	1	Q2:,	MOTOROLA
1018-A	TR,NPN,0.1A,50V,SOT-23,,,KSR1103,FAIRCHILD	PCS			FAIRCHILD
1018-B	TR,NPN,0.1A,50V,SOT-23,,,PDTC124ET,PHILIPS	PCS			PHILIPS
1018-C	TR,NPN,0.1A,50V,UMT3(SC-70),,SMD,DTC143EUA,ROHM	PCS			ROHM
1019	TR,N-MOSFET,0.115A,60V,SOT-23,,SMD,RK7002,ROHM	PCS	5	Q12:,Q13:,Q14:,Q4:,Q5:,	ROHM
1019-A	TR,N-MOSFET,0.115A,60V,SOT-23,SMD,2N7002,VISHAY	PCS			VISHAY
1019-B	TR,N-MOSFET,0.115A,60V,SOT-23,,SMD,2N7002,PAN JIT	PCS			PAN JIT
1019-C	TR,N-MOSFET,0.115A,60V,SOT-23,SMD,2N7002LT1,ON	PCS			ON
1019-D	TR,N-MOSFET,0.3A,60V,SOT-23,,SMD,2N7002K,VISHAY	PCS			VISHAY
1020	TR,N-MOSFET,6.9A,30V,SOIC-8,,SMD,AO4812,ALPHA&OMEGA	PCS	1	U3:,	ALPHA&OMEG
2001	CAP,CD,102,K,1KV,Y5P,CD106B102K1KVA5S520,CHYUN FUH	PCS	2	C115:,C660:,	CHYUN FUH
2001-A	CAP,CD,102,K,1KV,Y5P,,HI-K2,(G.P),2Y5P102K102S56,SEC	PCS			SEC
2001-B	CAP,CD,102,K,1KV,,9*5,,CK45-R3AD102K-PR,TDK	PCS			TDK
2002	CAP,CD,22P,J,3KV,Y5P,8.5*5,CC45SL3FD220JYPN,TDK	PCS	4	C26:,C27:,C28:,C29:,	TDK
2002-A	CAP,CD,22P,J,3KV,,5*7.5,,DEA1X3F220JP3A,MURATA	PCS			MURATA
2003	CAP,CD,103,M,500V,Z5U,10.5*5,,	PCS	1	C118:,	
2004	CAP,X2,334,K,275V,BOX,18L*8.5T*16.5H*15F,L=28,(G.P),HQX334K275I28S,UTX	PCS	1	C110:,	UTX
2004-A	CAP,X2,334,K,275V,BOX,18L*9.5T*16H*15F,L,KNB1560-L25,ISKRA	PCS			ISKRA
2005	CAP,Y1,222,M,250V,CD,12.5*10,L=25,(G.P),AH12E222ML,PAN OVERSEA	PCS	1	C117:,	PAN OVERS
2005-A	CAP,Y1,222,M,250V,CD,11.5*10,25mm,,CD12-E2GA222MYAS,TDK	PCS			TDK
2005-B	CAP,Y1,222,M,250V,CD,11*10,L=20,,5SE222MT402A97,SEC	PCS			SEC
2006	CAP,Y1,102,M,250V,CD,7*10,L=25,,DE1E3KX102MA4BL01,MURATA	PCS	2	C111:,C112:,	MURATA
2006-A	CAP,Y1,102,M,250V,,,,,CDAH09E102M,PANOVERSEAS	PCS			PANOVERSEA
2007	CAP,Y1,471,K,250V,CD,9.5*10,L=25,,AH09B471KL,PAN OVERSEAS	PCS	1	C116:,	PAN OVERSE
2007-A	CAP,Y1,471,K,250V,CD,11*10,L=20,ECKANA471KB,NS-A,MATSUSHITA	PCS			MATSUSHITA
2007-B	CAP,Y1,471,K,250V,CD,9.5*10,L=20,,5SB471KT402A97,SEC	PCS			SEC
2008	CAP,AL,100uF,400V,105'C,M,18*31.5,PIN=15,,KM101M400K315,CAPXON	PCS	1	C114:,	CAPXON
2008-A	CAP,AL,100uF,400V,105'C,M,18*30,PIN=15 MIN,AXW,RUBYCON	PCS			RUBYCON
2008-B	CAP,AL,100uF,400V,105'C,M,18*31.5,PIN=15 MIN,KMG400VB100,N.C.C	PCS			N.C.C
2008-C	CAP,AL,100uF,400V,105'C,M,18*32,PIN=15mm MIN,SH400M0100,TEAPO	PCS			TEAPO
2009	CAP,AL,LOW ESR,10uF,50V,105'C,M,5*11,TAPING,,KF100M050C110, CAPXON	PCS	1	C320:,	CAPXON
2009-A	CAP,AL,LOW ESR,10uF,50V,105'C,M,5*11,TAPING,,YXF, RUBYCON ; &N.C.C,KME	PCS			RUBYCON ; N.C.C
2009-B	CAP,AL,LOW ESR,10uF,50V,105'C,M,5*11,RLS, OST	PCS			OST
~~2010~~	~~CAP,AL,LOW ESR,470uF,25V,105'C,M,10*16,PIN=15,,KF471M025G160,CAPXON~~	~~PCS~~	~~2~~	~~C661:,C664:,~~	~~CAPXON~~
~~2010-A~~	~~CAP,AL,LOW ESR,470uF,25V,105'C,M,10*16,,YXG,RUBYCON~~	~~PCS~~			~~RUBYCON~~
~~2010-B~~	~~CAP,AL,LOW ESR,470uF,25V,105'C,M,10*16,,,RLS,OST~~	~~PCS~~			OST
2011	CAP,AL,LOW ESR,470uF,25V,105'C,M,10*16,PIN=15,7000HOURS,HW,TAICON	PCS	1	C662:C661;C664,	TAICON
2012	CAP,AL,LOW ESR,330uF,35V,105'C,M,10*16,PIN=15,,KF331M035G160,CAPXON	PCS	1	C21:,	CAPXON
2012-A	CAP,AL,LOW ESR,330uF,35V,105'C,M,10*16,,,YXG,(RUBYCON)	PCS			(RUBYCON)
2013	THERMISTOR,,2.5 ohm,5A,11.5*7.5,KINK,(G.P),SCK-2R55AMIQ4.0,THIKING	PCS	1	TH110:,	THIKING
2014	CAP,POLYPROPLENE,154,J,250V,13L*6.5T*12H*10F,,MPP-154J0250DB110,HJC	PCS	2	C24:,C25:,	HJC
2014-A	CAP,POLYESTER,0.15uF,K,160V,13L*4T*9H*10F,BOX,R75GF3150,ARCO	PCS			ARCO
2015	RES,M.OX,0.51 ohm,2W,J,S-SIZE,SERIES	PCS	1	R320:,	
2016	RES,M.OX,33K ohm,2W,J,S-SIZE,,	PCS	1	R112:,	
2017	RES,M.F,78.2K ohm,1/4W,F,,,	PCS	1	R336:,	
2018	RES,M.OX,1.5K ohm,1W,J,S-SIZE,,	PCS	4	R18:,R20:,R22:,R23:,	
2019	CAP,SMD,0805,103P,K,50V,X7R,	PCS	6	C10:,C14:,C16:,C17:,C32:,C9:,	
2020	CAP,SMD,0805,102,K,50V,X7R,	PCS	2	C12:,C333:,	
2021	CAP,SMD,0805,104,K,50V,X7R,	PCS	13	C1:,C11:,C13:,C15:,C18:,C2:,C22:,C321:,C322:,C4:,C6:,C7:,C8:	
2022	CAP,SMD,0805,471,K,50V,X7R,	PCS	1	C324:,	
2023	CAP,SMD,0805,472,K,50V,X7R,	PCS	1	C663:,	
2024	CAP,SMD,0805,105,K,16V,X7R,	PCS	3	C19:,C20:,C3:,	
2025	CAP,SMD,0805,271,K,50V,X7R,	PCS	2	C31:,C33:,	

2026	CAP,SMD,0805,222,J,50V,,,X7R,	PCS	1	C5:,	
Item	**Description**	**Unit**	**Qty**	**Location**	**Maker**
2027	RES,SMD,0805,100K ohm,1%,,,SERIES	PCS	6	R25:,R26:,R32:,R33:,R56:,R57:,	
2028	RES,SMD,0805,10K ohm,1%,,SERIES	PCS	6	R17:,R324:,R40:,R47:,R5:,R663:	
2029	RES,SMD,0805,110K ohm,1%,,SERIES	PCS	1	R10:,	
2030	RES,SMD,0805,0 ohm,5%,,SERIES	PCS	1	JP2:,	
2031	RES,SMD,0805,20K ohm,1%,,SERIES	PCS	3	R337:,R338:,R4:,	
2032	RES,SMD,0805,330 ohm, F,,SERIES	PCS	1	R327:,	
2033	RES,SMD,0805,12K ohm, F,,SERIES	PCS	1	R1:,	
2034	RES,SMD,0805,2.7K ohm, F,,,SERIES	PCS	4	R15:,R24:,R45:,R50:,	
2035	RES,SMD,0805,47K ohm, F,,,SERIES	PCS	4	R14:,R21:,R44:,R49:,	
2036	RES,SMD,0805,330K ohm,F,,,SERIES	PCS	1	R13:,	
2037	RES,SMD,0805,33K ohm,F,,,SERIES	PCS	1	R3:,	
2038	RES,SMD,0805,14K ohm,F,,,SERIES	PCS	1	R8:,	
2039	RES,SMD,0805,51K ohm,F,,,SERIES	PCS	2	R6:,R7:,	
2040	RES,SMD,0805,240K ohm,F,,,SERIES	PCS	1	R2:,	
2041	RES,SMD,0805,1K ohm,F,,,SERIES	PCS	2	R333:,R334:,	
2042	RES,SMD,0805,3.6K ohm,F,,,SERIES	PCS	4	R16:,R30:,R46:,R51:,	
2043	RES,SMD,0805,140K ohm,F,,,SERIES	PCS	2	R27:,R28:,	
2044	RES,SMD,0805,1M ohm,F,,SERIES	PCS	1	R11:,	
2045	RES,SMD,0805,2.2 ohm,F,,,SERIES	PCS	1	R326:,	
2046	RES,SMD,0805,150 ohm,F,SERIES	PCS	1	R321:,	
2047	RES,SMD,0805,100 ohm,F,SERIES	PCS	5	R19:,R43:,R48:,R58:,R9:,	
2048	RES,SMD,0805,26.1K ohm,F,,,SERIES	PCS	1	R323:,	
2049	RES,SMD,0805,510K ohm,F,,,SERIES	PCS	1	R35:,	
2050	RES,SMD,0805,590K ohm,F,,,	PCS	1	R12:,	
2051	RES,SMD,0805,220K ohm,F,,,	PCS	2	R29:,R31:,	
2052	RES,SMD,1206,390K ohm,5%,,SERIES	PCS	4	R120:,R121:,R126:,R127:,	
2053	RES,SMD,1206,0 ohm,J,,SERIES	PCS	1	JP7:,	
2054	RES,SMD,1206,300 ohm,F,,SERIES	PCS	1	R34:,	
2055	RES,SMD,1206,20 ohm,F,,SERIES	PCS	2	R660:,R661:,	
2056	RES,SMD,1206,1.1M ohm,F,,SERIES	PCS	2	R110A:,R110B:,	
3001	SOCKET,INLET,10A/15A,250V,SNPA,BLACK,3PIN,31*24,FOR PCB,ST-01K-BCK,SOLTEAM	PCS	1	CN100:,	SOLTEAM
3001-A	SOCKET,INLET,10A/15A,250V,SNAP,BLACK,3PIN,30.9*24.1,FOR PCB,SS-120-PCB-2.0B-J,RONG FENG	PCS			RONG FENG
3002	FUSE,GLASS,SLOW,2A,250V,5*20,W/PIGTAIL,SIP,WALTER	PCS	1	F110:,	WALTER
3002-A	FUSE,GLASS,SLOW,2A,250V,5*20,W/PIGTAIL,195,WICKMANN	PCS			WICKMANN
3002-B	FUSE,GLASS,SLOW,2A,250V,5*20,W/PIGTAIL,SLO-BLO,UTE,CONQUER	PCS			CONQUER
3003	PCB,SS,MAIN,CEM-1,1.6t,FSP035-1PI01M,1 O/Z,,,R:1-01	PCS	1	PCB:,	
4001	WIRE,UL1015,18AWG,YEL/GEN,60mm,W/HOOK,W/TUBE,,R:3	PCS	1	FOR CN100,FG1:,	
4002	PVC JUMPER WIRE,UL1007,20AWG,BLACK,D=0.8*20mm,,R:1	PCS	1	J1:,	
4003	同4JA00053/JUMPER WIRE,0.6mm,FOR AI DEMAND 53mm,SERIES	PCS	7	J4(10MM):,JP10(15MM):,JP3(17.5MM):,JP4(17.5MM):,JP8(10MM):,R41(7.5MM):,R42(7.5MM):,	
4004	同4JF00022/JUMPER WIRE,0.8mm,,,,SERIES	PCS	2	J2(15MM):,J3(10MM)	
4005	CONNECT,3.5mm,2PIN,WHITE,P35J1L-02,TKP	PCS	4	CN1:,CN2:,CN3:,CN4	TKP
4006	CONNECT,2.54mm,3PIN*2,BLACK,,,2061P-G006-17NNN,ENTERY	PCS	1	CN110:,	ENTERY
4007	同4JA00053/JUMPER WIRE,0.6mm,FOR AI DEMAND 53mm,SERIES	PCS	5	JP1(10MM):,JP11(7.5MM):,JP5(7.5MM):,JP6(7.5MM):,JP9(12.5MM)	
5001	HEAT SINK,AL,18.5H*52.5L*4W,t=4,,,R:1	PCS	1	HS100:,	
5002	HEAT SINK,BRASS,14H*52L*14W,,,TIN PLATED,R:2	PCS	1	HS200:,	
~~5003~~	~~INSULATOR,RUBBER,SILICON,25*18.6*0.3,,,R:1~~	~~PCS~~	~~1~~	~~FOR D660:,FOR D661:,~~	
5004	HEAT TUBE,125'C,BLK,D=6mm,,,,SERIES	PCS	2	FOR F110(25MM):,FOR WIRE(13MM):,	
5005	HEAT TUBE,125'C,BLK,D=7.0mm,,,,SERIES	PCS	2	FOR R112(16MM):,FOR R320(16MM):,	
~~5006~~	~~INSULATOR,PAD,TO-220AB,#602~~	~~PCS~~	~~1~~	~~FOR D660:,~~	
5007	INSULATOR,PAD,GND CONNECTOR,D=8,,GND-8,	PCS	1	FG:,	
5008	NUT,,M3*0.5,NI,,R:1	PCS	3	FOR D660:,FOR D661:,FOR Q320:,	
5009	ACCESSORY,CLIP,FRAME,SPCC,24.2H*28L*6W,t=0.5,FSP030-1PI01,R:4	PCS	1	HS300:,	
5010	SCREW,,FHMS,M3*12mm,NI,,R:1	PCS	1	FOR Q320:,	
5011	SCREW,MACHINE,FHMS,M3*8mm,NI,,R:1	PCS	2	FOR D660:,FOR D661:,	
6001	GLUE,RUBBER ADHESIVE,,777HER,,	KG	0.004		
6002	LABEL,BAR CODE,Fxxxxxxxxxxxx,,,36*8.5,,R:1	PCS	1	FOR PCB:,	
6003	同6PB0036801/CARTON,BOX,FSP,530L*395W*180H,FSP035-1PI01,24PCS,,R:2	PCS	0.0416666	CARTON:,	
6004	ANTISTATIC FOAM SHEET,305*120*3,PINK,E.P.E,,R:1	PCS	1	E.P.E:,	
7001	CORE,FER,RH3.5*3.2*1.6,B,ui=800,BRH3.5*3.2*1.6,CHILISIN	PCS	4	FOR BD110*2:,FOR D110*1:,FOR	CHILISIN
8001	CHOKE,FER,UU-10.5V,D=0.32,90Ts,15mH,(G.P),SAMSUNG,	PCS	1	L111:,	
8002	CHOKE,FER,R6*15,D=0.8,7.5Ts,1.5uH,PIN=3.3,PITCH=8,(G.P),SAMSUNG	PCS	1	L660:,	
8003	CHOKE,FER,DR10*16,D=0.55,63.5Ts,120uH,PIN=2.8,PITCH=6,SAMSUNG	PCS	2	L1:,L2:,	
8003-A	CHOKE,FER,DR10*16,D=0.55,63.5Ts,120uH,PIN=2.8,PITCH=6,SAMSUNG	PCS			
8004	X'FMR,EPC-19H(12P),D=0.05,1700Ts,FSP035-1PI01,150mH	PCS	2	T1:,T2:,	
8005	X'FMR,EFD-30H(12P),D=0.32,68Ts,FSP035-1PI01,735uH	PCS	1	T100:,	
2057	VARISTOR,20VAC,26VDC,SMD,0805,TVM2B330(TVM2B330K301R),THINKING,	PCS	1	R325	THINKING

14. SPARE PARTS LIST

Part Number	Part Description	needed
AS02B012D91	ADD/INV,FSP035-1PI01MA,90~264V REV1A	x
FBL9E006015	AL FOIL L9E(FBL9E006,REV3A)	
HCL70002017	BARCODE LABELL70E(HCL70002,REV3A)	
EBL9E007011	BUTTON BEZEL L9EA(EBL9E007,REV3A)	
DD0L0TPC104	CABLE ASSY L0T MB-VGA(15P,REV2A)(WHITE)	x
DDL70LPC100	CABLE ASSY L70L1.8M PC-MONITOR (REV1A)	x
DD0L9ETH005	CABLE ASSY L9E MB-BUTTON(10P,REV1A)	
DD0L9ELC005	CABLE ASSY L9E MB-LCD(30P,REV1A)	x
DD0L9ETH102	CABLE ASSY L9E POWER-CHASSIS(1P,REV1A)	
CH31006K919	CAP CHIP 0.01U 50V(+-10%,X7R,0603)	x
CH34703K916	CAP CHIP 0.047UF 16V(+-10%,X7R,0603)	x
CH41004Z931	CAP CHIP 0.1U,25V(+80-20%,Y5V,0603)	x
CH51001K991	CAP CHIP 1U 6.3V(+-10%,X5R,0603)	x
CH22206K917	CAP CHIP 2200P 50V(+-10%,X7R,0603)	
CC71004MD68	CAP ELEC 100U 25V +-20%,105C,6*11,LESR	
CC62204MD23	CAP ELEC 22U 25V(+-20%,105C,5*11,2000HR)	
CC73303MD51	CAP ELEC 330U 16V(+-20%,105C,8*11,2000HR	
CC81001MD71	CAP ELEC DIP 1000U6.3V +-20% 105C 8*11.5	x
CH41004MA14	CAPACITOR CHIP 0.1U 25V(+-20%,X7R,0805)	
CH11206J908	CAPACITOR CHIP 120P 50V(+-5%,NPO,0603)	
CH51004MA32	CAPACITOR CHIP 1UF 25V(+-20%,Y5V,0805)	
CH12206J901	CAPACITOR CHIP 220P 50V(+-5%,NPO,0603)	
CH02206J909	CAPACITOR CHIP 22P 50V(+-5%,NPO,0603)	
CH03306J905	CAPACITOR CHIP 33P 50V(+-5%,NPO,0603)	
HFL9E003010	CARTON L9EA(HFL9E003,REV3A)	x
DC04725K002	CHOKE COIL 47UH(2.5A,+-10%,T07473)	x
DFHD10MR316	CONN DIP HEADER 10P 1R MR(P2.0,H4.1)	
DFHD10MR316	CONN DIP HEADER 10P 1R MR(P2.0,H4.1)	
DFHD30MR259	CONN DIP HEADER 30P 2R MR(P2.0,H4.0)	
DFHD04MR124	CONN DIP HEADER 4P 1R MR(P2.0,H4.1)	
DFHD06MR247	CONN DIP HEADER 6P 2R MR(P2.5,H6.0)	
DFPJ05FR145	CONN DIP PHONE JACK 5P FR(H10)248C	
DFDS15FR050	CONN D-SUB 15P 3R FR,P1.15,H12.55,NO SRW	
DFDI30FR049	CONN DVI-I DIP30P 3R FR(P1.905,H10.04)	
BG611059319	CRYSTAL DIP 11.0592MHZ(+-30PPM,49/US)	
BC1SS355Z05	DIODE SMD 1SS355(80V,100MA)	x
BCBAT54CZ02	DIODE SMD BAT54C(30V,200MA,SCHOTTKY)	x
BCRB081LZ02	DIODE SMD RB081L-20(20V,5.0A,VF:0.45V)	x
BDGZ5226Z03	DIODE ZENER SMD MMGZ5226B(3.3V)	x
CX201209805	EMI FILTER CHIP FBM-11-201209-121A40	
CX000300104	EMI FILTER CHIP FCM1608C-300T06 30,600MA	
CX0E601R009	EMI FILTER CHIP HZ0805E601R(600,500MA)	
HBL9E001013	END CAP-L L9E(HBL9E001,REV3A)	x
HBL9E002010	END CAP-R L9E(HBL9E002,REV3A)	x
GBLM7003017	GASKET-3 LM7S(GBLM7003,REV3A)	
GBLM7003017	GASKET-3 LM7S(GBLM7003,REV3A)	
GBLM7003017	GASKET-3 LM7S(GBLM7003,REV3A)	
FAL9E004011	HINGE ASSY L9E(FAL9E004,REV3A)	x
EBL9E006015	HINGE COVER L9EA(EBL9E006,REV3A)	
HCL70021011	HI-POT LABEL L70L(HCL70021,REV3A)	
AKE3I8B0602	IC EEPROM(8P)M24C08-WMN6T(1K*8,400K,SO8)	x
AKE1A800Y02	IC EEPROM(8P,5V) 24LC02B(2K*1,SOP)	x
AJ08131CC06	IC(128P) MST8131A(135MHZ,FQFP)	x
AL007496D02	IC(20P) TDA7496L(DIP)	x

AL001117078	IC(3P) AIC1117CY(SOT-223)	x
AJ00312VP18	IC(44P) MTV312MV64AJ(12MHZ,PLCC)	x
AL001563001	IC(8P) AIC1563CS(SOP8)	x
MBLI1004018	IO NUT LI1(MBLI1004,REV3A)	
29L7VMB00Q9	L7VD M/B ASSY(FOR L9E,AU)	x
3BL7VSS0084	L7VD M/B S/S ASSY(FOR L9E,AU)	
33L9EBCMA10	L9E BACK COVER ASSY(AU)	x
22L9EBB0009	L9E BUTTON/B ASSY	
32L9EFBMA11	L9E FRONT BEZEL ASSY(AU)	x
23L9ELAMA27	L9E LCD MODULE ASS(AU)	
1L9EZZZMA31	L9E LCD MONITOR(AU PMVA)	
34L9EBRMA04	L9E M/B BKT ASSY	
34L9EBR0	L9E M/B BKT ASSY	
35L9EMSMA05	L9E M/B SHIELD ASSY	
35L9EMS0	L9E M/B SHIELD ASSY	
26L9EPKMA15	L9E PACKING ASSY(AU PMVA)	
24L9ESAMA17	L9E STAND ASSY(AU)	
37L9ESBMA15	L9E STAND BASE ASSY(AU)	x
36L9ESAMA19	L9E STAND NECK ASSY(AU)	x
EAL9E005018	LCD BEZEL L9EA(EAL9E005,REV3A)	
FBL9E002010	LCD BRACKET L L9E(FBL9E002,REV3A)	
FBL9E001013	LCD BRACKET R L9E(FBL9E001,REV3A)	
EAL9E006014	LCD COVER L9EA(EAL9E006,REV3A)	
JXL9E001014	LCD FILM L9E(JXL9E001,REV3A)	
AAM190EN005	LCD(TFT) 19" M190EN02 REV:V2	x
BEYG0013DA3	LED(DIP) YELLOW/GREEN(L-3WYGW)	
EBL70015011	LENS L70H(EBL70015,REV 3A)	
FBL70008014	LOCK METAL L70B(FBL70008,REV3A)	
FAL9E001012	M/B BKT L9E(FAL9E001,REV3A)	
FCL9E001014	M/B BKT MYLAR L9E(FCL9E001,REV3A)	
FAL9E002019	M/B SHIELD L9E(FAL9E002,REV3A)	
FCL9E002011	M/B SHIELD MYLAR L9E(FCL9E002,REV3A)	
HDL9E002011	MANUAL L9EA(HDL9E002,REV3A)	x
FCL70007019	MYLAR SCALAR/LCD L70L-A(FCL70007,R3A)	
EBL7V030013	PCB SPACER L7VD(EBL7V030,REV3A)	
DA0L9ETB1A0	PCB(BUTTON) L9E TB(1L,175*19,REVA)	
DAL7VDMB2A8	PCB(M/B) L7VD MB(2L,125*108,REVA)	
HAL0T002019	PE BAG L0T(HAL0T002,REV3A)	
DM333180014	POWER CORD(EU) 3P 1.8M Y345B30000818001	x
HCL9E002011	RATING LABEL L9EA(HCL9E002,REV3A)	
CS31003J908	RES CHIP 10K 1/10W +-5%(0603)	
CS21003J906	RES CHIP 1K 1/10W +-5%(0603)	
CS32003J901	RES CHIP 20K 1/10W +-5%(0603)	
CS02203J902	RES CHIP 22 1/10W +-5%(0603)	
CS22003J909	RES CHIP 2K 1/10W +-5%(0603)	
CS23903J904	RES CHIP 3.9K 1/10W +-5%(0603)	x
CS03303J909	RES CHIP 33 1/10W +-5%(0603)	
CS43303J906	RES CHIP 330K 1/10W +-5%(0603)	
CS23003F900	RES CHIP 3K 1/10W +-1%(0603)	
CS04703J906	RES CHIP 47 1/10W +-5%(0603)	
CS38203J904	RES CHIP 82K 1/10W +-5%(0603)	
CS00003J900	RESISTOR CHIP 0 1/10W+-5%(0603)	
CS00006J205	RESISTOR CHIP 0 1/4W+-5%(3216)	
CS00004JA07	RESISTOR CHIP 0 1/8W +-5%(0805)	
CS11003J904	RESISTOR CHIP 100 1/10W +-5%(0603)	
CS21003F904	RESISTOR CHIP 1K,1/10W,+-1%(0603)	
CS12003F905	RESISTOR CHIP 200 1/10W+-1%(0603)	

CS42403F905	RESISTOR CHIP 240K 1/10W,+-1%(0603)	
CS-3303J901	RESISTOR CHIP 3.3 1/10W +-5%(1608)	x
CS13303F909	RESISTOR CHIP 330 1/10W +-1%(0603)	
CS33303J904	RESISTOR CHIP 33K 1/10W +-5%(0603)	
CS13903F901	RESISTOR CHIP 390 1/10W+-1%(0603)	
CS24703F908	RESISTOR CHIP 4.7K 1/10W+-1%(0603)	x
CS26803J909	RESISTOR CHIP 6.8K 1/10W +-5%(1608)	x
CS07503F905	RESISTOR CHIP 75 1/10W +-1%(1608)	
GAL5M002011	RUBBER FOOT L5M(GAL5M002,REV3B)	x
GAL5T001016	RUBBER-HOLDER L5TL-E(GAL5T001,REV3B)	
MS35050ILV0	SCEREW M3.5*5-I(NI),W	
MF30060PBJ5	SCREW F3.0*6.0-P(NI)	
MF30080IBJ0	SCREW F3.0*8-I(NI)	
MF30080BBJ5	SCREW F3.0*8L,B,NI	
MF40160PJ22	SCREW F4.0*16-P(BLACK NI)	
MM30030IBJ4	SCREW M3*3-I-NI	
MM30050BBJ9	SCREW M3*5-B-NI-+	
MM30060IBJ8	SCREW M3.0*6.0-I(NI)	
MM40100BCI2	SCREW M4*10.0-B(NI,NYLOK)	
HFLM5007019	SPACE PLATE LM5A(HFLM5007,REV3A)	
DN0QT390073	SPEAKER ASSY L9E FG-QT390H 2W*2	
EAL9E008017	STAND BASE L9EA(EAL9E008,REV3A)	
EAL9E007011	STAND NECK L9EA(EAL9E007,REV3A)	
FBL9E003016	STAND NECK PLATE L9E(FBL9E003,REV3A)	
FAL9E003015	STAND PLATE L9E(FAL9E003,REV3A)	
DHP0002B108	SWITCH PUSH BUTTON(PT-002-B1,50MA,12V	
BAM23010Z05	TRANSISTOR MOSFET SI2301DS(-12V,-2.3A)	x
BAM9410YZ02	TRANSISTOR MOSFET SI9410DY(30V,7A)	x
BA144EUAZ04	TRANSISTOR SMD DTC144EUA(50V,30MA)	x
BA001440Z87	TRANSISTOR SMD PDTC144EU (50V,30MA)	x
BA039040Z01	TRANSISTOR,SMD MMBT3904(40V,200MA)	x
BA039060Z01	TRANSISTOR,SMD MMBT3906(40V,200MA)	x
HCLM5013016	TRAVEL CARD LM5A(HCLM5013,REV3A)	
BG614318D55	XTAL DIP 14.318MHZ(+-30PPM,07010-X-136-2	x

15. Auto White Balance Procedure

1 Connect signal to monitor. The display signal need contain real black and full white.

2 Press "Auto" button (don't release) when power ON (LED display Amber).

3 Press OSD select FACTORY 2, Auto Color, RUN (For AD converter calibration on R, G and B gain, offset).

4 Select Color Update, RUN.

5 Press OSD select COLOR into 6500 and check by color analysis (If adjustment Press OSD select FACTORY 1 for Adjust the R, G, B gain. Please make color update when finished adjustment on 6500)

6 Press OSD select COLOR into 9300 and check by color analysis (If adjustment Press OSD select FACTORY 1 for
Adjust the R, G, B gain. Please make color update when finished adjustment on 9300)

* Please make sure that Brightness set 100, Contrast set 80 when adjust (factory default).

* The adjustment result needs to be checked by Color Analysis like CA110, the input signal 0.7V and full white pattern while on check.